# ENTREPRENEURSHIP DEVELOPMENT & STARTUP MANAGEMENT

## M.B.A. Semester– II 207EM24

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# **M.**B.A.-Entrepreneurship Development & Startup Management

**Reprint : 2023**

**No. of Copies :**



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**Published by:**
**Prof. V.Venkateswarlu,**
***Director***
**Centre for Distance Education,**
**Acharya Nagarjuna University**

***Printed at:***

## *FOREWORD*

***Since its establishment in 1976, Acharya Nagarjuna University has been forging ahead in the path of progress and dynamism, offering a variety of courses and research contributions. I am extremely happy that by gaining 'A' grade from the NAAC in the year 2016, Acharya Nagarjuna University is offering educational opportunities at the UG, PG levels apart from research degrees to students from over 443 affiliated colleges spread over the two districts of Guntur and Prakasam.***

***The University has also started the Centre for Distance Education in 2003-04 with the aim of taking higher education to the door step of all the sectors of the society. The centre will be a great help to those who cannot join in colleges, those who cannot afford the exorbitant fees as regular students, and even to housewives desirous of pursuing higher studies. Acharya Nagarjuna University has started offering B.A., and B.Com courses at the Degree level and M.A., M.Com., M.Sc., M.B.A., and L.L.M., courses at the PG level from the academic year 2003-2004 onwards.***

***To facilitate easier understanding by students studying through the distance mode, these self-instruction materials have been prepared by eminent and experienced teachers. The lessons have been drafted with great care and expertise in the stipulated time by these teachers. Constructive ideas and scholarly suggestions are welcome from students and teachers involved respectively. Such ideas will be incorporated for the greater efficacy of this distance mode of education. For clarification of doubts and feedback, weekly classes and contact classes will be arranged at the UG and PG levels respectively.***

***It is my aim that students getting higher education through the Centre for Distance Education should improve their qualification, have better employment opportunities and in turn be part of country's progress. It is my fond desire that in the years to come, the Centre for Distance Education will go from strength to strength in the form of new courses and by catering to larger number of people. My congratulations to all the Directors, Academic Coordinators, Editors and Lesson- writers of the Centre who have helped in these endeavors.***

***Prof. K.Gangadhara Rao***
*Vice-Chancellor*
*Acharya Nagarjuna University*

**207EM24: ENTREPRENEURSHIP DEVELOPMENT & START UP MANAGEMENT**

COURSE LEARNING OUTCOMES (CLOs)
On successful completion of the course the learner will be able to:

- Recognize and understand the concept of How to Build a Startup Management Team
- Entrepreneurs acquire resources and persuade others to invest in their novel venture.
- Identify the various environmental factors, external to the individual,
- Outline how entrepreneurship connects to innovation in small firms and new ventures.

**Unit I: Introduction: Entrepreneurship** – Meaning, importance- Entrepreneur; Characteristics- women entrepreneurs; Classification of entrepreneurs-Myths about Entrepreneurship- Entrepreneur Vs Intrapreneur- Management Vs Entrepreneurship.

**Unit II: Idea Generation and Opportunity Assessment**: Importance of Ideas in entrepreneurship- Sources of New Ideas – Techniques for generating ideas- Steps in assessing business potential of an idea- Opportunity Recognition- sources and process- Steps in tapping opportunity.

**Unit III: Project preparation and Financing Ventures**: Meaning of and Preparation of Project- Importance of Report- Content; Guidelines for Report preparation- Network Analysis- PERT and CPM – Sources of Finance- Concept of working Capital; Seed Capital; Venture Capital.

**Unit IV: Institutions Supporting Small Business Enterprises**: Introduction- Central Level Institutions- KVIC; SIDO; NSIC Ltd; National Productivity Council (NPC); EDII -State Level Institutions- DIC- SFC-SSIDC- Industry Associations- CII ; FICCI;ASSOCHAM.

**Unit V: Start Up Management**: What Is A Startup: Definition, Characteristics And Their Types- How to Build a Startup Management Team- Startup Management Team Roles- Complete Your Team with Expert Software Developers.

**Recommended Books:**


1. Arya Kumar, Entrepreneurship, Pearson, Delhi, 2012.
2. Poornima M. Ch., Entrepreneurship Development- Small Business Enterprises, Pearson, Delhi, 2009
3. Michael H. Morris, et. al., Entrepreneurship and Innovation, Cengage Learning, New Delhi, 2011
4. Kanishka Bedi, Management and Entrepreneurship, Oxford University Press, Delhi, 2009
5. Anil Kumar, S., et. al., Entrepreneurship Development, New Age International Publishers, New Delhi , 2011
6. Khanka, SS, Entrepreneurial Development, S. Chand, New Delhi, 2011.

**Lesson - 1**

# ENTREPRENEURSHIP - INTRODUCTION

## 1.0 OBJECTIVES:

After completion of this lesson, you should be able to understand:

- Definition - Meaning.
- Concept of Entrepreneurship.
- Growth of Entrepreneurship in India.
- Role of Entrepreneurship in Economic Development.

## STRUCTURE:



## 1.1 INTRODUCTION:

Entrepreneurship refers to a process of action an entrepreneur (person) undertakes to establish his/her enterprise. It is a creative and innovative response to the environment. Entrepreneurship is thus a cycle of actions to further the interests of the Entrepreneur.

One of the qualities of entrepreneurship is the ability to discover and investment opportunity and to ability to discover and investment opportunity and to organise an enterprise, there by

contributing to real economic growth. It involves taking of risks and making the necessary investments under conditions of uncertainty and innovating, planning and taking decisions so as to increase production in agriculture, business, industry, etc.

Entrepreneurship is a composite skill, the resultant of a mix of many qualities and traits. These include imagination, readiness to take risks, ability to bring together and put to use other factors of production, capital, labour, land as also intangible factors such as the ability to mobilise scientific and technological advances.

## 1.2 MEANING OF ENTREPRENEURSHIP:

Entrepreneurship is the propensity of mind to take calculated risks with confidence to achieve a pre-determined business or industrial objective. In substance, it is the risk- taking ability of the individual, broadly coupled with correct decision – making. When one witnesses a relatively larger number of individuals and that too, generation after generation, in a partivular community, who engage themselves in the industrial or commercial pursuits and appear to take risks and show enterprise, it is acknowledged to be a commercial class. The commercial class is a myth just like that of the so-called martial race.

## 1.3 ENTREPRENEURSHIP: - DEFINITIONS AND CONCEPT

Entrepreneurship is an elusive concept that cannot be defined precisely. How ever, people having different interests have defined ‘Entrepreneurship’ in a number of ways.

- Economists focus on " what happens when entrepreneurs act".
- Psychologists and Sociologists are interested in way they act.
- Management experts focus on how the entrepreneurs act, in the characteristics of entrepreneurial managers and the manner in which entrepreneurs achieve their goals.

According to **Peter F. Drucker**, an entrepreneur is one who always searches for change, responds to it and exports it as an opportunity. Innovation is an instrument of ‘ entrepreneurship ’.

According to **Robert Ronstand**, entrepreneurship as a dynamic process of creating Inver mental wealth.

As per the **Adam Smith**, the Father of Political Economy, the entrepreneur has a role of an industrialist in his book, wealth of nations he describes the entrepreneur as an individual who forms an organisations for commercial purpose.

**Encyclopedia Britannica** defines ‘entrepreneur’ as an individual who bears the risk of operating a business in the face of uncertainty about future conditions.

**CONCEPT:**

From the classical economists to the Post – Keynesian analysts, the topic of the entrepreneur has been surveyed, and observations, theories and pronouncements advanced. Not only were pure economists involved in the endeavours but also prominent social theorists such as **Marx, Weber, Sombard and Veblen**.

In general, contemporary economists agree that the entrepreneur is a business leader and that his role in fostering economic growth and development is a pivotal one. At present, however, there is no consensus at to what constitutes the issential activity, which makes the entrepreneur a crucial figure. While some economists have identified the basic entrepreneurial function as risk-taking, others have emphasised the coordination of production resources, the provision of capital or the introduction of innovations.

In the words of **A.H Cole**, entrepreneurship is the purposeful activity of an individual or a group of associated individuals, undertaken to initiate, maintain or organise a profit- oriented business unit for the production or distribution or economic goods and services.

In other words, entrepreneurship means the function of creating something new, organising and coordinating and undertaking risk and handling economic uncertainty. **Higgins** defines the terms as, entrepreneurship is meant the function of seeing investment and production opportunity, organising an enterprise to undertake a new production process, raising capital, hiring labour, arranging for the supply of raw materials and selecting top managers for the day-to-day operation of the enterprise.

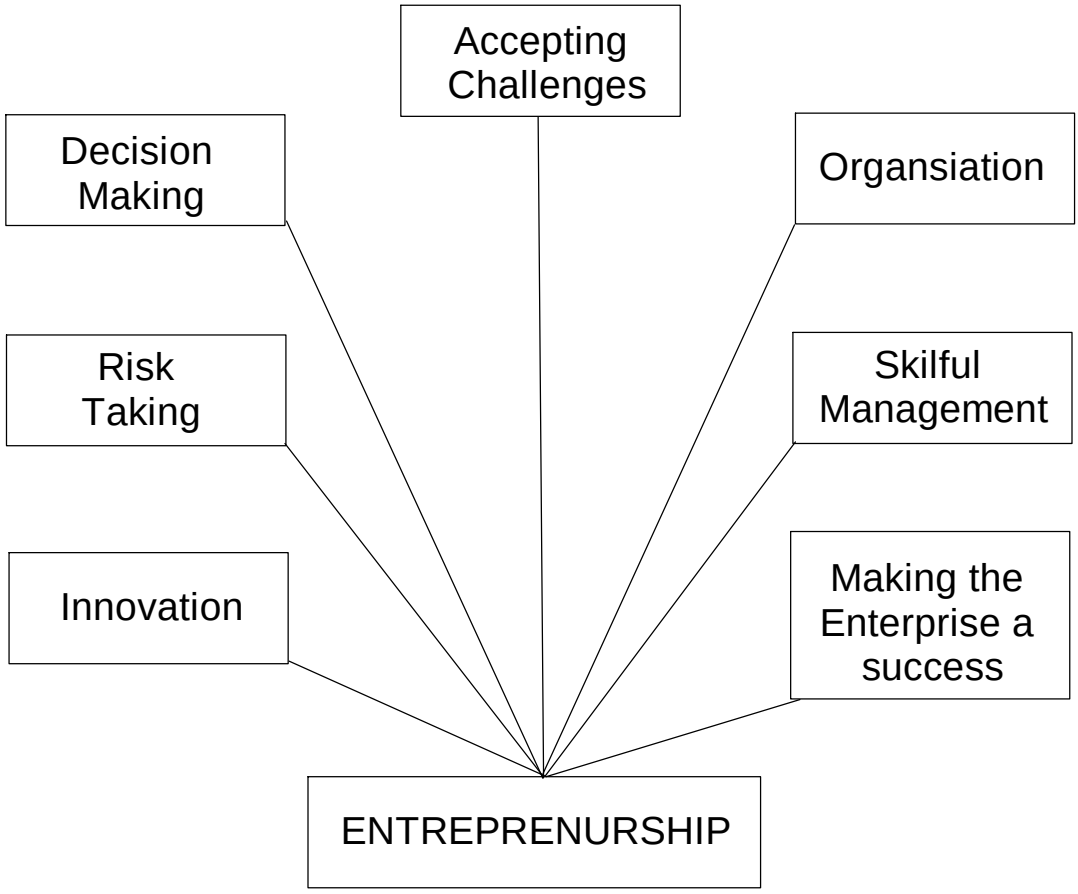



**Fig 1.1 Characteristics of Entrepreneurship**

According to **Peter F. Drucker**, entrepreneurship is neither a science nor an art. It is a practice. It has knowledge base. Knowledge in entrepreneurship is a means to end. In deed, what

constitute knowledge in practice is largely defined by the ends, that is by the practice "Entrepreneurship is considerably less risky, if the entrepreneur is methodical and does not violate elementary and well known rules".

Innovation and entrepreneurship are thus needed in society as much as in the economy, in public service institutions as much as in businesses. It is precisely because innovation and entrepreneurship are not " root and branch " but, one step at a time", a product here, a policy there, a public service yonder, because they are not planned but focused on this opportunity and that need; because they are tenlative and will disappear if they do not produce the expected and needed results; because, in other words, they are pragnostic rather than dogmatic and modest rather than grandiose – that they promise to keep any society, economy, industry, public service, or business flexible and self- renewing.

Thus, entrepreneurship is a complex phenomenon, " somethink of entrepreneurs primarily as innovators, some chiefly as managers of enterprise, some as bearers of risks, and others place major emphasis on their function as mobilisers and allocators of capital", In the Indian context, however, and entrepreneur may at best be defined as a person (or group of persons) responsible for the existence of a new business enterprise.

## 1.4 INNOVATION AND RISK – BEARING:

Innovation and risk – Bearing are regarded as the two basic elements involved in entrepreneurship. Let us understand what these two terms actually mean.

**INNOVATION:**

Innovation, i.e., doing something new or something different is a necessary condition to be called a person as an entrepreneur. The entrepreneurs are constantly on the look out to do something different and unique to meet the changing requirements of the customers. They may or may not be inventors of new products or new methods of production, but they possess the ability to foresee the possibility of making use of the inventions for their enterprises. Let some facts speak.

In order to satisfy the changing preference of customers, now -a-days fruit-juice is sold in small cartons ( Mango Fruity ) instead of bottles so that customers can carry it and throw away the container after drinking the juice. Let us take another example. Lipton offers its tea in small packs known as ' PUDIYAS ' to meet the requirements of its rural customers. Since customer ' taste and preferences always keep on changing, hence the entrepreneur needs to apply invention after invention on a continuous basis to meet the customers changing demands for productions.

**RISK - BEARING:**

Starting a new enterprise always involves risk and trying for doing something new and different is also risky. The reason is not difficute to seek. The enterprise may earn profits or incur losses because of various factors like increasing competition, changes in customer preferences, shortage of raw material and so on. An entrepreneur, therefore, needs to be bold enough to assume the risk involved in the enterprise. In fact, he needs to be a risk taker, not risk avoider. His risk-bearing ability enables him even if he fails in one time or one venture to persist on and on which ultimately helps him succeed.

The Japanese proverb applies to him :

**" FALL SEVEN TIMES, STAND UP RIGHT " :**

Though the term entreprenem is often used interchangeably with entrepreneurship, yet they are conceptually different. The relationship between the two is just like the two sides of the same coin as depicted in the following table 1.2

**Table 1.2 Relationship between Entrepreneur and Entrepreneurship**

| Entrepreneur | Entrepreneurship |
|---|---|
| Person | Process |
| Organiser | Organisations |
| Innovator | Innovation |
| Risk – bearer | Risk – bearing |
| Motivator | Motivation |
| Creator | Creation |
| Visualiser | Vision |
| Leader | Leadership |
| Imitator | Imitation |

Thus, entrepreneurship is concerned with the performance and coordination of the entrepreneurial functions. This also means that entrepreneur precedes entrepreneurship.

## 1.5 ROLE OF ENTREPRENEURSHIP IN ECONOMIC DEVELOPMENT

The word development is used in so many ways that its precise connotation is often baffling. Neverthe less, economic development essentially means a process of upward change whereby the real per capital income of a country increases over a long period of time. Then, a simple but meaningful question arises: what causes economic development? This question has absorbed the attention of scholars of socio-economic changes of decades. In this section, we attempt to shed light on an important aspect of that larger question, the phenomenon of entrepreneurship. The one major issue we address here is: what is the significance entrepreneurship for economic development ? Does it add an important independent influence to that of other factors widely agreed to promote economic development.

**Adam, Smith,** the foremost classical economist, assigned no significance to entrepreneurial role in economic development in his monumental work' An equity into the nature and causes of the wealth of nations, published in 1776. **Smith** extolled the rate of capital formation as an important determinant of economic development. The problem of economic development was ergo largely the ability of the people to save more and invest more in any country. According to him, ability to save is governed by improvement in productivity to the increase in the dexterity of every worker due to division of labour. **Smith** regarded every person as the best Judge of his own interest who should be left to pursue it to his own advantage. According to him, each individual is led by an

'invisible hand ' in pursuing his/her interest. He always advocated the policy of laissez-faire in economic affairs.

In this theory of economic development, **David Ricardo** identified only three factors of production, namely, machinery, capital and labour, among whom the entire produce is distributed as rent, profit and wages respectively. **Ricardo** appreciated the virtues of profit in capital accumulation. According to him, profit leads to saving of wealth, which ultimately goes to capital formation.

Thus, in both the classical theories of economic development, there is no room for entrepreneurship, and, economic development seems to be automatic and self regulated. Thus, the attitude of classical economists was very cold towards the role of entrepreneurship in economic development. They took the attitude: " The form is shadow entity, and entrepreneur even shadowes – or atleast is shady when he is not shadowy ".

The economic history of the presently developed countries, for example, America, Russia and Japan tends to support the fact that the economy is an effect for which entrepreneurship is the cause. The crucial role played by the entrepreneurs in the entrepreneurship is the cause. The crucial role played by the entrepreneurs in the development of the western countries has made the people of under-developed countries too much conscious of the significance of entrepreneurship for economic development, Now, people have begun to realise that for achieving the goal of economic development, it is necessary to increase entrepreneurship both qualitatively and quantitatively in the country.

## 1.6 ENTREPRENEURSHIP AS A PROCESS:

In the lost decade and a half there has been a resurgence of entrepreneurship in higher education. This revival is not from the traditional discipline of economic but from the discipline of business management. The business schools have instituted new courses in entrepreneurship.

While entrepreneur is a person who sets up a business, ' Entrepreneurship' is considered as the process or action of setting up of the new venture and the venture so set-up is called the 'enterprise'. Entrepreneurship has been considered as the propensity of mind to take a calculated risk with confidence to achive a predetermined business objective. It is the risk taking ability of an individual coupled with the correct decision-making. **Schumpeter** described it a process and the entrepreneur as innovators who use the process to shatter the status quo through the combination of resources and new methods of commerce.

## 1.7 ENTREPRENEURSHIP AS CAREER OPTION:

An educated person has broadly two career options. One is called wage or salary employement, wherein people are employed in government service, public and private sectors and get fixed wage or salary. The other career option is entrepreneurial employment under which people set up their new venture. Wage employement is self-saturating. Once a valid, it blocks the employement opportunity to other for another ten years. On the other hand, the latter contributes towards national wealth and has a unique characteristic of self-generation. Their starts a chain of activities that creates unending employement opportunities. Entrepreneurship promotes small saving amongst middle class individuals for investment into new ventures. It also provides an out

let that creates an urge among individuals to attain excellence in product design and related innovation. Thus, entrepreneurship provides a losting solution to the acute problem of unemployment.

## 1.8 ENTREPRENEURSHIP CREATES BALANCED REGIONAL DEVELOPMENT :

The growth of industry and business leads to a large number of public benefits like road transport, health, education, entertainment, etc. When the industries are concentrated in selected cities, the development gets limited to these cities. Till last sixties, 50 percent of industrial enterprises were located in only six cities of India. A rapid development of entrepreneurship ensures a balanced regional development. When the new entrepreneurs grow at a faster pace, in view of the increasing competition in and around the cities, they are forced to set up their enterprises in the smaller towns away from big cities. This helps in the development of the backward regions.

## 1.9 FACTORS AFFECTING ENTREPRENEURIAL GROWTH :

The emergence and development of entrepreneurship is not a spontaneous one but a dependent phenomenon of economic, social, political, psychological factors often nomenclatured as supporting conditions to entrepreneurship development: For analytical purposes, these factors are grouped and discussed under two categories, viz; economic factors and non-economic factors.

**I Economic Factors :**

From a strictly economic view point, it can be said that the same factors which promote economic development account for the emergence of entrepreneurship also. Some of these factors are discussed in below.

**A. Capital:** Capital is one of most important prerequisites to establish an enterprise. Availability of capital facilities the enterprise. Availability of capital facilities the entrepreneur to bring together the land of one, machine of another and raw material of yet another to combine them to produce goods. Therefore, capital is, regarded as lubricant to the process of production.

**B. Labour:** The quality rather quantity of labour is another factor, which influences the emergence of entrepreneurship. It is noticed that cheap labour is often less mobile or even immobile. And the potential advantages of low cost labour are negated by the deleterious effects of labour immobility. **Adam smith** also considered division of labour as an important element in economic development. According to him, division of labour which itself depends upon the size of the market leads to improvement in the productive capacities of labour due to an increase in the dexterity of labour.

**C. Raw Material:** The necessity of row materials hardly needs any emphasis for establishing any industrial activity and, therefore its influence in the emergence of entrepreneurship. In the absence of row materials, neither any enterprise can be established nor an entrepreneur can be emerged.

**D. Market:** The fact remains that the potential of the market constitutes the major determinant of probable rewards from entrepreneurial function. Frankly speaking, if the proff of pudding lies in eating, the proff of all production lies in consumtion i.e. marketing. The size and composition of market both influence entrepreneurship in their own ways. Practically, monopoly in a particular product in a market becomes more influential for entrepreneurship than a competitive market.

**II. NON – ECONOMIC FACTORS:**

Sociologists and psychologists advance that economic factors may be necessary conditions, but they are not sufficient conditions for the appearance of entrepreneurship. They view that the influence of economic factors on entrepreneurial emegence largely depends upon the existence of non-economic factors i.e., social and psychological factors in the society. Some major non-economic factors alleged to influence the emergence of entrepreneurship can be listed as follows:

**Social Conditions :**

**Legitimacy of Entrepreneurship :** The Proponents of non - economic factors given emphasis to the relevance of a system of norms and values within a Socio - Cultural setting for the emergence of Entrepreneurship. In professional vacobulary, such system is reffered to as the " Legitimacy of Entreprenuership " in which the degree of approval or dissapproval granted entrepreneurial behaviour influences its emergence and characteristics if it does emerge.

**Social Mobility :** Social mobility, involves the degree of mobility, both social and geographical and the nature of mobility channels within a system. The opinion that the social mobility is crucial for entreprenemial emergence is not unanimous. Some hold the view that a high degree of mobility is conducive to entrepreneurship.

**Psychological Factors:** Many entrepreneurial theorists have propounded theories of entrepreneurship that concentral specifically upon psychological factors. We consider these theories separately for that reason.

**Need Achievement :** To the best of our knowledge the best know of primarily psychological theories is **David McClelland's** theory of need achievement. **McClelland** gives the psychological concept of achievement motivation or 'n' achievement to account for the differences in response to similar conditions. Referring to the encouraging impact of achievement motivation training programmes organised by the Small Industries Extention Training Institute (SIET), Hyderabad. He argues that the need achievement can be developed through the intensive training programmes.

Hagen believes that the initial condition leading to eventual entrepreneurial behaviour is the loss of status by a group. He postulates that four types of events can produce states withdrawal:

(a) The group may be displaced by force,

(b) It may have its valued symbols denigrated,

(c) It may drift into situation of status inconsistency, and

(d) It may not be accepted the expected status on migration in a new society

He further postulates that withdrawal of status respect would give rise to four possible reactions and create four different personality types:

**(a) Retreatist**: He who continues to work in a society but remains different to his work and position.

**(b) Ritualist:** He who adopts a kind of defensive behaviour and acts in the way accepted and approved in his society but no hopes of improving his position.

**(c) Reformist:** He is a person who foments a rebellion and attempts to establish a new society; and

**(d) Innovator:** He is a creative individual and is likely to be an entrepreneur.

**Hagen** maintains that once status withdrawal has occurred, the sequence of change in personality formation is set in motion. He refers that status withdrawal takes a long period of time- as much as five or more generations- to result in emergence of entrepreneurship.

## 1.10 SUMMARY :

Entrepreneurship does not emerge and develop automatically and spontaneously. Its emerce and development depend upon the availability of certain factors also called 'supportive conditions. These factors are broadly classified into economic and non-economic factors. While economic factors consist of capital, labour, raw materials and market; non economic factors include social and psychological factors like legitimacy of entrepreneurship, social mobility, marginality, security, need achievement, withdrawal of status respect, etc.

## 1.11 TECHINICAL TERMS:

Entrepreneurship = purposeful activity of an individual or systematic innovation

Innovation = Doing something new or something different.

## 1.12 SELF- ASSESSMENT QUESTIONS :

1. What is Entrepreneurship? Distinguish between Entrepreneur and Entrepreneurship "
2. " Entrepreneurship is a process of giving birth to an enterprise " Discuss.
3. Entrepreneurship development can go a long way in solving the economic and non-economic problems of a developing country like India. Do you agree? Explain.
4. Explain the psychological factors in entrepreneurship.
5. Explain the importance of entrepreneurship in Indian Economy.

## 1.13 REFERENCE BOOKS:

**1.** S.S. Khanka : *Entrepreneurial Development*, S.Chand & Co, Ltd, New Delhi ; 2005

**2.** Satish Taneja & S.L Gupta : *Entrepreneur Development*, New Venture Creation, Galgotia Publishing Co., New Delhi ; 2005.

**3.** Vasant Desai : *Dynamics of Entrepreneurial Development and Management,* Himalaya Publishing House, New Delhi ;1995

**DR. D.NAGESWARA RAO.**

## Lesson - 2

# IMPORTANCE AND TYPES OF ENTREPRENEURSHIP

## 2.0 OBJECTIVES:

After completion of this lesson, you should be able to understand:

- Entrepreneur meaning, definitions
- Entrepreneurs – Economists view.
- Sociologists View
- Psychologists view
- Qualities of Entrepreneur
- Functions,
- Importance of an Entrepreneur
- Characteristics of an Entrepreneur
- Types of Entrepreneur

## STRUCTURE:

## 2.1 INTRODUCTION:

An entrepreneur is one of the important segments of economic growth. Basically, an entrepreneur is a person who is responsible for setting up a business or an enterprise. In fact, he is one who has the initiative, skill for innovation and who looks for high achievement. He is a catalytic agent of change and works for a good people.

An urge to exercise power over other things and objects persists among all human beings. The urge may vary in degree from person to person. This urge in an intrinsic quality of an entrepreneur. Sociologists consider him as a sensitive energiger in the modernisation of societies. The psychologists look upon him as an " entrepreneurial man', his motivations and aspirations as conducive to development. Political scientists regard him as a leader of the system. To economists, he is an harbinger of the system.

The entrepreneur is a critical factor in the socio-economic change. He is the key man who envisage new opportunities, new techniques, new lines of production, new products and co-ordinates all other activities.

## 2.2 DEFINITIONS OF AN ENTREPRENUER:

The word " entreprenuer " is derived from the French verb entreprendre. It means, " to undertake". In the early 16$^{th}$ century, the Frenchmen who organised and led military expeditions were referred to as " Entreprenuer ". Around 1700 AD the term was used for architects and contractors of public works. **Quesnay** regarded the rich farmer as an entreprenuer who manages and makes his business profitable by his intelligence, skill and wealth.

- **Peter. F. Drucker** defines an entreprenuer as one who always searches for change, responds to it and exploits it as an opportunity. Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or service.
- **Elarence H.Dantrof** considers entrepreneur as a person who makes decision under alternative course of action.
- **Marx** regarded entreprenuer as a social parasite.
- **Frank Young** describe entrepreneur as a change agent.

## 2.3 ENTREPRENEURIAL QUALITIES:

The entrepreneurial qualities are to some extent innate. But not all of them are entirely innate. Some can be enhanced by training, or simply by experience. For example, analytical ability

and computational skill can be enhanced by education at school and university, while practical knowledge and foresight skills can be enhanced by the general experience of everyday life. Entrepreneurial careers will be strongly influenced by the desire to enhance qualities which are scare, yet difficult to obtan through delegation because of the problems involved in screening for them. Of the two Indispensable qualities of the entrepreneur, imagination is almost entirely innate, while foresight, though to some extent innate, can be enhanced by a varied experience. Imagination and foresight are the scarce qualities, which are difficult to analyse and quantity. Delegation skill and organisation skill, though not essential, are highly desirable whenever large-scale decision-making is contemplated. These too are qualities, which can be enhanced through experience.

## 2.4 CHARACTERISTICS OF AN ENTREPRENEUR:

The characteristics of an entrepreneur that contribute to success are the result of his achievement motivation. The characteristics of achievement motivated persons as identified by **McClelland** have been discussed in the, future of Entrepreneurship in India " ( A successful entrepreneur must be a person with technical competence, initiative, good judgment, intelligence, leadership qualities, self-confidence, energy, attitude, creativeness, fairness, honesty, tactfulness and emotional stability.

**a) Mental ability:** Mental ability consists of intelligence and creative thinking. An entreprenuer must be reasonably intelligent, and should have creative thinking and must be able to engage in the analysis of various problems and situations in order to deal with them. The entrepreneur should anticipate changes and must be able to study the various situations under which decisions have to be made.

**b) Clear objectives:** An entreprenuer should have a clear objective as to the exact nature of the business, the nature of the goods to be produced and subsidiary, activities to be undertaken, A successful entreprenuer may have the objective to establish the product, to make profit or to render social service.

**c) Business secrecy:** An entrepreneum must be able to guard business secrets. Leakage of business secrets to trade competitors is serious matter, which should be carefully guarded against by an entrepreneur. An entrepreneur should be able to make a paper selection of his assistants.

**d) Human relations ability:** An entrepreneur who maintains good human relations with customers, employees, suppliers, creditors, and the community is much more likely to succeed in his business than the individual who does not practise good human relations.

**e) Communication ability:** Communication ability is the ability to communicate effectively. Good communication also means that both the sender and the receiver understand each other and are being understood. An entrepreneur who can effectively communicate with customers, employers, suppliers and creditors will be more likely to succeed than the entrepreneur who does not.

**f) Technical Knowledge:** An entrepreneur must have a reasonable level of technical knowledge. An entrepreneur who has a high level of admistrative ability mental ability and human relations ability communication ability, and technical knowledge stands a much better chance of success than his counterpart who possesses low levels of these basic

qualities. Brilliant men with first class degrees from university shy away from becoming entrepreneurs because the one thing they cannot be taught is coping with human emotions. **Robert D.Hisrich** has identified a few more capabilities or personal characteristics that an entrepreneur should possess. Those are, 1) motivator 2) self confidence 3) long term involvement 4) High energy level 5) persistent problem- solver, cool setter and risk taker.

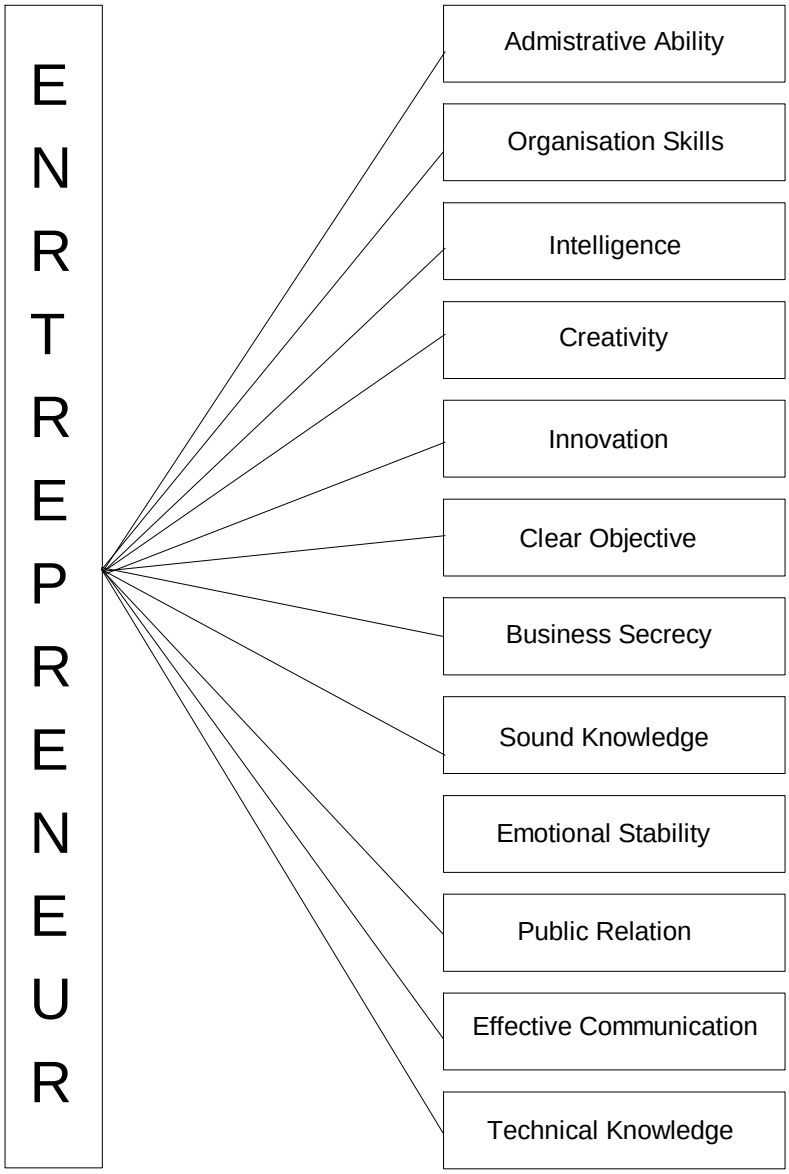



**FIG 2.1 CHARACTERISTICS OF AN ENTREPRENEUR**

## 2.5 ENTREPRENEURIAL FUNCTIONS:

A successful entrepreneur recognises the commercial potential of a product or service, designs operating policies in marketing, production, product development and the organisational structure. He carriers out the whole set of activities of the business. He has a high capacity for taking calculated risks and has faith in his own capabilities.

An entrepreneur is expected to perform the following functions.

**a) Assumption of Risk:** The entrepreneur assumes all possible risk of business. A business risk also involves the risk due to the possibility of changes in the tastes of consumers, techniques of production and new inventions. Such risks are not insurable. If they materialise, the entrepreneur has to bear the loss himself. Thus, risk bearing or uncertainty bearing still remains the most important function of an entrepreneur. An entrepreneur tries to reduce the uncertainties by his initiative, skill and good, judgment

**b) Business Decisions:** The entrepreneur has to decide the nature and type of goods to be produced. He enters the particular industry, which offers him the best prospects and produces whatever commodities he thinks will pay him the most and employs those methods of production which seem to him the most profitable. He effects suitable changes in the size of the business, its location, techniques of productions and does everything that is needed for the development of his business.

**c) Managerial Functions:** The entrepreneur performs the managerial functions though the managerial functions are different from entrepreneurial functions. He formulates production plans, arranges finance, purchases raw materials, provides production facilities, organises sales and assumes the task of personal management. In a large establishment, these management functions are delegated to the paid managerial personnel.

**d) Function of Innovation:** An important function of an entrepreneur is " innovation". He conceives the idea for the improvement in the quality of production line. He considers the economic viability and technological feasibility in bringing about improved quality. The introduction of different kinds of electronic gadgets is an example of such an innovation of new products. Innovation is an ongoing function rather than once for all, or possibly intermittent activity.

**e) Other functions:** The entrepreneurial functions can be performed by very different kinds of people under different economic systems. In principle, the entrepreneur could be in planner in a socialist economy, or even a priest or king in a traditional society. In practice, entrepreneurship is closely identified with private enterprise in a market economy.

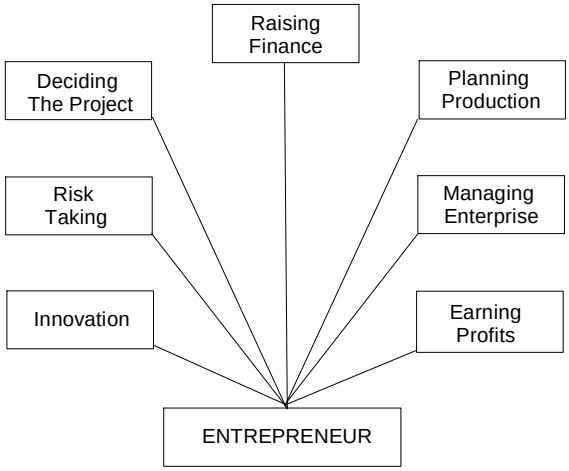



**FIG 2.2 ENTREPRENEURIAL FUNCTIONS**

## 2.6 CLASSIFICATION OF ENTREPRENEURS :

In modern times stress has been laid on entrepreneur. Entrepreneurial development is the thrust area of development planners, economic thinkers and polily makers. What is more, the entrepreneur has emerged as a kingpin of development.

By and large, entrepreneurs are found in every economic system and in every form of economic activity as well as in other social and cultural activities. They are found amongst aritsons, labourers, artists, importers, exporters, engineers, supervisors, bankers, industry, professionals etc. They also found among farmers, fishermen, forest workers, tribals and so on. Some writers have also identified entrepreneurs among politicians, theologists, philosophers and bureaucrats.

Broady, entrepreneurs are classified into business community and others. According to **Clarence Danhaf** classified entrepreneurs into four categories, namely, Innovative entrepreneur, Initiative entrepreneur, Fabian entrepreneur and Drone entrepreneur. The other classification is based on technology, economic activity and market economy.

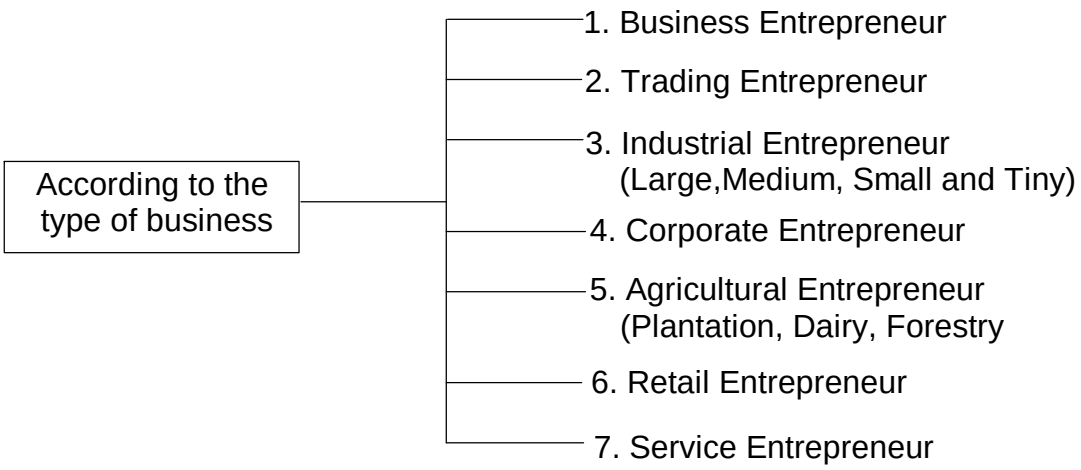
**a) Economists view:** In economic analysis entrepreneurial functions are supposed to be directed towards the materialistic objective of maximisation through its foundations may be of a high order such as spiritual, patriotic, social, psychological or ethnic. Entrepreneurial activity is a form-giving activity- giving form to the wishes to the society, to ideas, to the efforts of factors and to the raw material to be processed through.

**J.B. Say, Kirzer** economists viewed the entrepreneur as a disequilibrating force. **B.F.Hoselitz reports** " The primary function of entrepreneurship is the investment to time, capital and energy in economically significant pursuits, the emphasis is on decision- making in its various aspects. **B.C.Tandon** discusses the functions of an entrepreneur in a developing economy in the context of economic, legal, political and cultural environment.

Thus economic functions described above isolate the entrepreneur from the economic environ, social milieu and political ethos in which he functions.

**b) Sociologists View:** Sociologists consider the entrepreneur as a role performer corresponding to the role expected by the society. Wishes of the society are exhibited through customs and taboos, rewards and restraints, ethnic values and child – rearing practices, nationalistic attitude and patriotic inculcations and protestant ethics. According to **Peter Marris** to assemble or reassemble from what is available, very concrete kind of imagination, to see what others have missed, sensitivity to business and social environment, Zest in industrial development and entrepreneurial courage are the factors that make an entrepreneur.

**c) Psychologists View :** Among Psychologists, **Frank Young** describes an entrepreneur as a change – agent. **K.L. Sharma** maintains that entrepreneurs are men who exhibits qualities of leadership in solving persistent professional problems, but those persons likewise demonstrate eagerness to seize unusual opportunities.




## CLASSIFICATION OF ENTREPRENEURS

The entrepreneurs in business are broadly classified according to the type of business, use of professional skill, motivation, growth and stages of development.

**A. According to the type of business :**

Entrepreneurs are found in various types of business occupations of varying size. We may broady classify them as follows :

1) **Business Entrepreneur :** Business Entrepreneurs are individuals who conceive an idea for a new product or service and then create a business **Keting** resources in their search to develop a new business to materialise their idea into reality. They top both production and marketing resources in their search to develop a new business opportunity. They may set up a big establishment or a small business unit. They are called small business entrepreneurs when found in small business units such as Printing Press, Textile processing house, Advertising Agency, Ready – Made Garments or Confectionery.

2) **Trading Entrepreneur :** He is one who undertakes trading activities and is not concerned with the manufacturing work. He identifies potential markets, stimulates demand for his product line and creates a desire and interest among buyers to go in for his product. He is engaged in both domestic and overseas trade.

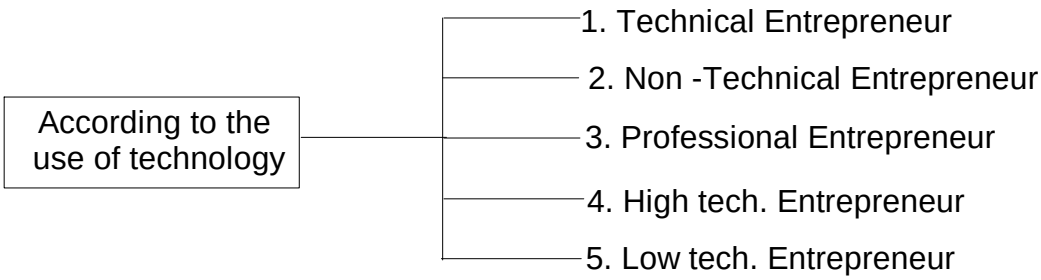
3) **Industrial Entrepreneur :** He is essentially a manufacturer who identifies the potential needs of customers and tailors product or service to meet the marketing needs. He is a product oriented man who starts in an industrial unit because of the possibility of making some new product.

4) **Corporate Entrepreneur :** He is a person who demonstrates his innovative skill in organising and managing a corporate undertaking. A trust registered under the Trust

Act, or a company registered under Companies Act are examples of corporate undertakings. A corporate entrepreneur is thus an individual who plans, develops and manager a corporate body.

5) **Agricultural Entrepreneur :** Agricultural Entrepreneurs are those entrepreneurs who undertake such agricultural activities as raising and marketing of crops, fertilisers and other inputs of agriculture. They cover a broad spectrum of the agricultural sector and includes agriculture and allied occupations.

**B. According to use of Technology :**




The application of new technology in various sectors of National Economy is essential for the future growth of business. We may broadly classify these entrepreneurs on the basis of the use of technology as follows :

1) **Technical Entrepreneur :** A Technical entrepreneur is essentially an entrepreneur of " Craftsman Type ". He develops a new and improved quality of goods because of his craftsmanship. He concentrate more on production than marketing. He does not care much to generate sales by applying various sales promotional techniques. He demonstrates his innovate capabilities in matters of production of goods and rendering services. The greatest strength which the technical entrepreneur has is his skill in production techniques.

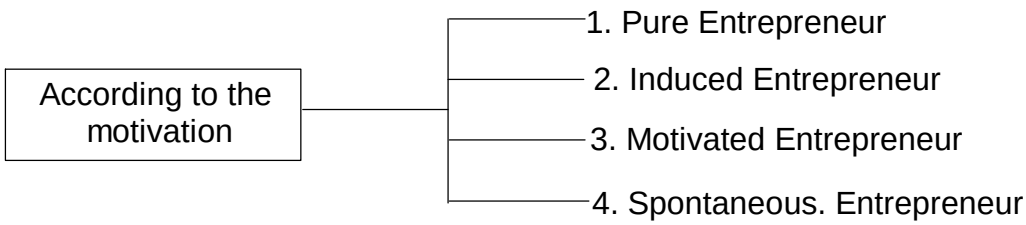
2) **Non – Technical Entrepreneur :** Non Technical Entrepreneur are those who are not concerned with the technical aspects of the product in which they deal. They are concerned only with developing alternative marketing and distribution strategies to promote their business.

3) **Professional Entrepreneur :** Professional entrepreneur is a person who is interested in establishing a business but does not have interest in managing or operating it once it is established. A professional entrepreneur sells out the running business and starts another venture with the sales proceeds: Such an Entrepreneur is dynamic and he conceives new ideas to develop alternative projects.

**C. According to Motivation :**

Motivation is the force that influences the efforts of the entrepreneur to acheive his objectives. An entrepreneur is motivated to acheive or prove his excellence in job performance. He is also motivated to influence others by demonstrating his power thus satisfying his ego.

According to motivation, it divided into four types of entrepreneurs :




1) **Pure Entrepreneur :** A Pure Entrepreneur is an individual who is motivated by psychological and economic rewards. He undertakes and entrepreneurial activity for his personal satisfaction in work, ego or status.

2) **Induced Entrepreneur :** Induced entrepreneur is one who is induced to take up an entrepreneurial task due to the policy measures of the government that provides assistance, incentives, concessions and necessary overhead facilities to start a venture. Most of the entrepreneurs are induced entrepreneurs who enter business due to financial, technical and several other facilities provided to them by the state agencies to promote entrepreneurship.

3) **Motivated Entrepreneur :** New Entrepreneurs are motivated by the desire for self – fulfillment. They come into being because of the possibility of making and marketing some new product for the use of consumers. If the product is developed to a saleable stage, the entrepreneur is further motivated by reward in terms of profit.

4) **Spontaneous Entrepreneur :** These entrepreneurs start their business out of their natural talents. They are persons with initiative, boldness and confidence in their ability which motivate, them to undertake entrepreneurial activity. Such entrepreneurs have a strong conviction.

**D. According to the Growth :**

The development of a new venture has a greater chance of success. The entrepreneur enters a new and open field of business. The customer approval to the new product gives them psychological satisfaction and enormous profit. The industrial units are identified as high growth, medium growth and low growth industries and as such we have “Growth Entrepreneur” and “Super Growth Entrepreneur”.

1) **Growth Entrepreneur :** Growth Entrepreneurs are those who necessarily take up a high growth industry. These entrepreneurs choose an industry which has substantial growth prospects.

2) **Super – Growth Entrepreneur :** Super – Growth Entrepreneurs are those who have a shown enormous growth performance in their venture. The growth performance is identified by the liquidity of funds, probitability and gearing.

**E. According to Stages of Development :**

Entrepreneurs may also be classified as the first generation entrepreneurs, modern entrepreneur and classical entrepreneur, depending upon the stage of development.

1) **First Generation Entrepreneur :** A First – Generation entrepreneur is one who starts an industrial unit by means of an innovative skill. He is essentially an innovator, combining different technologies to produce a marketable product or service.
2) **Modern Entrepreneur :** A modern entrepreneur is one who undertakes those ventures which so well along with the changing demand in the market. They undertake those ventures which suit the current marketing needs.
3) **Classical Entrepreneur :** A Classical Entrepreneur is one who is concerned with the customers and marketing needs through the development of a self- supporting venture. He is a stereotype entrepreneur whose aim is to maximize his economic returns at a level consistent with the survival of the firm with or without an element of growth.

**F. Other Types Of Entrepreneurs :**

1) **According to area :** The entrepreneur are subdivided into two categories a) Urban Entrepreneur b) Rural Entrepreneur
2) **According to Gender and Age :** The entrepreneur in this category subdivided into, a) Men Entrepreneur b) Women Entrepreneur c) Young Entrepreneurs d) Old Entrepreneurs and e) Middle – Aged Entrepreneurs.

In this time of rapid economic development and technological change, the entrepreneurial sprit can be a unique and of important advantage, but only if we learn to use it. The entrepreneurs are the agents of change and our hope for the future. In fact, the entrepreneur always searches for change, responds to it, and exploits it as an opportunity.

## 2.7 INTRAPRENEUR:

Of late, a new breed of entrepreneurs is coming to the fore in large industrial organisations. They are called 'Intrapreneurs '. They emerge from within the confines of an existing enterprise. In big organisations, the top executives are encouraged to catch hold of new ideas and then convert these into products through research and development activities within the frame work of organisation. The concept of intrapreneurship has become very popular in developed countries like America. It is found that an increasing number of Intrapreneurs is leaving their jobs in big organisations and is starting own enterprises. Many of such Intrapreneurs have become exceedingly successful in their ventures. What is more that they are causing a threat to the organisations they left. Such intrapreneurs breed to the innovative entrepreneurs who inaugurate new products.

## 2.8 SUMMARY :

Different people have defined entrepreneur differently. The commonest definition of an entrepreneur is a person who organises, manages and takes the risk of running an enterprise. He arranges everything required to set up an enterprise i.e., funds, lands, people, material and machinery. The entrepreneurs retain common characteristics of independence, motivation, optimistic, dynamic, innovating and risk bearing ability.

An Entrepreneur differs from a manager on various counts. The former is owner, whereas the latter is a servant. Entrepreneur is rewarded with profit which is highly uncertain. On the other hand, manager gets salary as a reward for the services rendered by him in the enterprise.

The main functions performed by the entreprenuer are risk – bearing, organisation and innovation.

The entrepreneurs are broadly classified into seven types –

1. According to the type of business.
2. According to the use of technology
3. According to motivation
4. According to the growth
5. According to the stages of development
6. According to area and
7. According to gender and age.

The entrepreneurs emerging from within the confines of organisation are called “Intrapreneurs” . The intrapreneurs are top executives encouraged to catch hold of new ideas to convert them into products. Intrapreneurship serves as a seed – bed for the development of innovative entrepreneurship. Innovation is the hall mark of entrepreneurship.

## 2.9 TECHNICAL TERMS :

1. Entrepreneur = is a person who organises manages and takes the risk of running an enterprise
2. Enterprise = activity, concern
3. Innovation = bring in changes, new things
4. Drone = lazy idler.

## 2.10 SELF - ASSESSMENT QUESTIONS :

1. What do you understand by the term entrepreneur ? Give the main characteristics of an entrepreneur
2. Explain the main functions performed by the entrepreneurs.
3. Describe the classification of entrepreneurs.
4. “Developing countries need imitative rather than innovative Entrepreneurs”, comment.

## 2.11 REFERENCE BOOKS :

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**Dr. D. NAGESWARA RAO.**

**Lesson - 3**

# ENTREPRENEURIAL SUPPORT SYSTEMS

## 3.0 OBJECTIVES :

After completion of this lesson, you should be able to understand –

- need for support systems
- existing structure of support system in India.
- strengthening the support system.
- single window support system.

## STRUCTURE :



## 3.1 INTRODUCTION :

Entrepreneurial development is essential for the industrialisation and economic development of a developing country like a India. Growth of local entrepreneur is generally inhibited by shortage of capital and managerial skills. Therefore, entrepreneurship remains confined to a small section of society in which capital and managerial skills are concentrated. In order to widen the base of entrepreneurship, the government of India offers financial assistance and training facilities on priority basis of less privileged sections of society. The legal, institutional and organisational measures initiated by the government are designed to create a support system for developing entrepreneurship in all sections of society.

## 3.2 NEED FOR SUPPORT SYSTEM :

Capital and skill are no doubt essential for generating entrepreneurship. But these alone cannot produce entrepreneurs in the absence of Government support and protection to new entrepreneurs. In this connection the expert study group which evaluated the Gujarat EDP (Entrepreneur Development Programme ) experiment made the following observation, to accelerate the growth of entrepreneurship, it is absolutely necessary to develop various support systems at

least at the initial stages of growth…. Such support system should function till such time a critical number of entrepreneurs are developed in the society. So that entrepreneurship does not remain an isolated, individual dominated phenomenon but becomes reality and forms an integral part of the culture. Only systematic and organised nurturing of entrepreneurship would ultimately generate pressures on the existing socio – economic and political institutions, cultural attitudes, practices, and values, towards modernisation.

The type of support system required varies from entrepreneur to entrepreneur, particulary in case of Small Scale Entrepreneurs. An entrepreneur with engineering background requires different types of support as compared to an entrepreneur with a business background. Small Scale Entrepreneurs face special problems and are more vulnerable to failure. Such entrepreneurs face the following types of problems.

**I. Management** – Lack of sound organisation, poor management of working capital.

**II. Marketing** – High competition, dependence on one or small number of buyers.

**III. Production** – Shortage of raw materials, power shortage, low level of technology.

**IV. Finance** - Inadequate bank finance, financing capital or non – productive expenditure out of working funds.

Continuous inputs through the support system have to be provided to enable the entrepreneurs to tackle these problems. The types of inputs, their extent and their timing should be tailored to the needs of entrepreneurs at various stages of their development. The process of development begins with the selection of entrepreneurs and ends up with the break – even stage. The support systems needed at different stages are given in Fig 3.1.

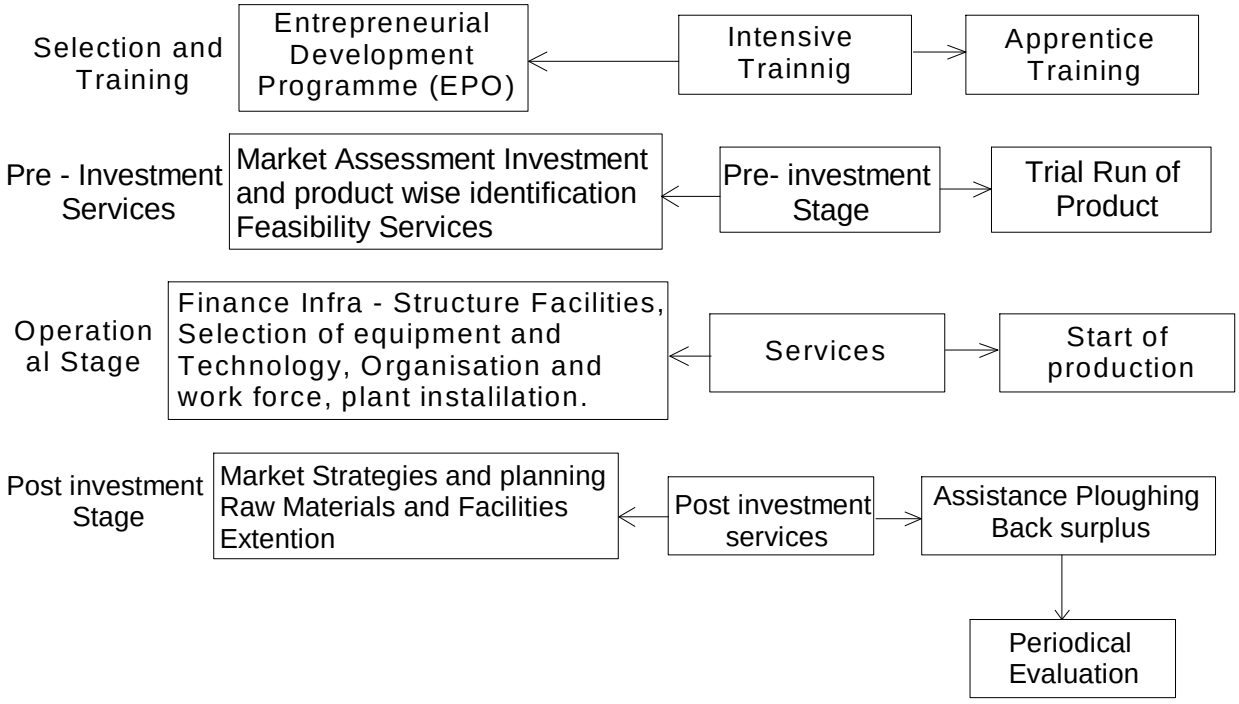


**FIG 3.1. PROCESS OF ENTREPRENEURSHIP**

## 3.3 EXISTING STRUCTURE OF SUPPORT SYSTEM :

The institutional structure of the support system in India is depicted Fig.3.2 .This structure has been built by the government through incentive oriented policies, facilities and concessions over a period of five decades . It has been designed to generate industrial entrepreneurship. Various agencies provide finance, intraclaucture and training facilities .

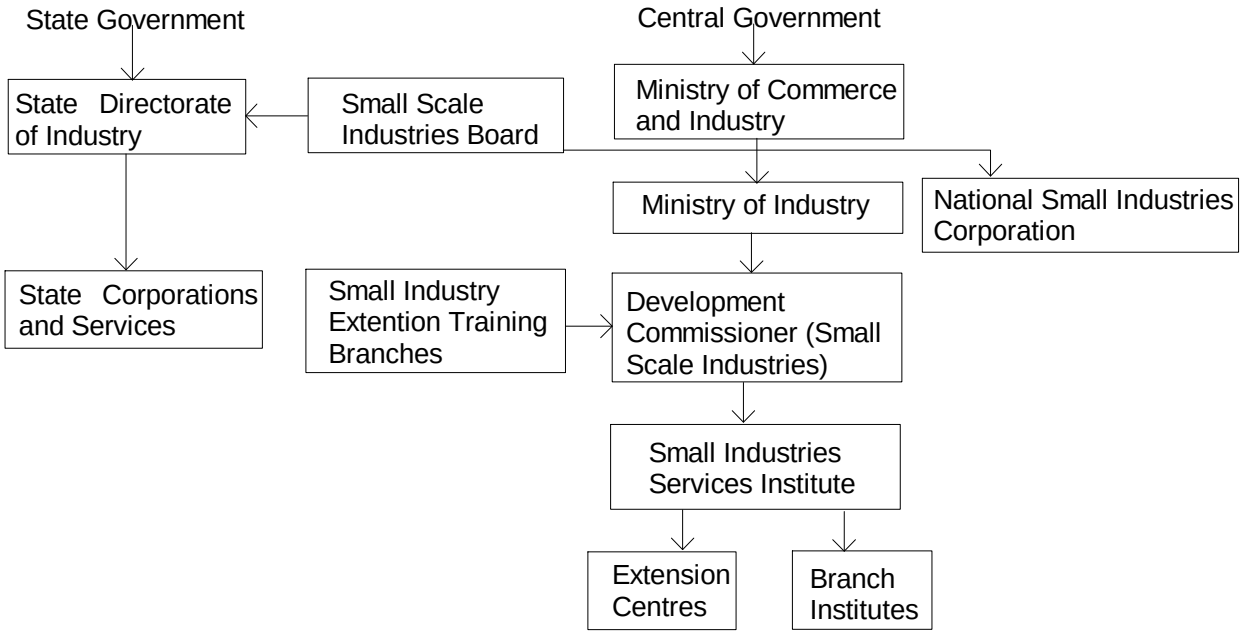


**FIG. 3.2 SUPPORT SYSTEM FOR ENTREPRENEURS IN INDIA**

The support system given above consists of various institutions at the national and state levels. It has filled a vital gap in the industrial development of the country by promoting entrepreneurship. It has succeeded in focusing the attention of administrators and political leaders on the problems of entrepreneurial development in the small scale sector. While appreciating the wide network of the support system in India. **Staley** and **Morse** concluded : No effort combining so many elements in a simultaneous approach to small factor stimulation has been launched in other country. In addition to the large support, the nationalised commercial banks have launched special programmer through the expanding network of their branches. These programmes are particularly designed to promote industrialisation of ' backward areas' so as to acheive the goal of balanced regional development.

## 3.4 WEAKNESS OF INDIAN'S SUPPORT SYSTEM :

India's support system is not free from weakness or limitations. It suffers from the following weaknesses :

1) Financial mismanagement on the part of entrepreneurs has been leading to increased sickness and closure of many enterprises.

2) Most of the agencies in support system operate as financial institutions. No doubt capital is the major inhabiting factor in entrepreneurial development in India. But finance

alone cannot promote entrepreneurship. Entrepreneurial motivation and managerial skills are equally important. Therefore, the institutions must look far beyond their present gate keeping functions. They must assume a new development role.

3) Most of the institutions in the support system tend to the conservative and are excessively security oriented. They are more concerned with the provisions of the scheme than with the needs of the people they are supposed to help. These institutions have rigid hierarchy based on bureaucratic organisation structures and treat their clients impersonally in a mechanical manner.

4) There exists a wide credibility gap between the beneficiaries and the institutions. A large percentage of the entrepreneurs are completely unaware of the various programmers of assistance offered by the support agencies. Most of them believe that assistance from the agencies involves much delays, harassment and bribery. Many of them are in dire need of assistance but are reluctant to approach the institutions. The institutions, on the other hand, take the plea that people do not come forward to take advantage of their services.

5) There is lack of effective coordination between various agencies concerned with the support system.

6) The agencies in the support system are finding it difficult to feed the increasing number of trained candidates and accommodate them in the EDP with economically viable and technologically feasible projects. A majority of the small scale entrepreneurs lack the ability to plan for a viable project which is essential for the success of an enterprise.

## 3.5 STRENGTHENING THE SUPPORT SYSTEM :

The following steps may be taken to make the institutional framework more effective in creating and sustaining entrepreneurship.

1) Continuous examination and adoption of existing techniques is necessary.

2) Over – emphasis on financial assistance should be avoided.

3) A structural change in the organisation of various institutions is required. Entrepreneurial development requires greater flexibility of organisation and a more dynamic approach. Bureaucratic functioning and vertical hierarchical, structures should be replaced by decentralisation and horizontal expansion.

4) The financial institutions will have to rebuild their credibility with the people by taking the services to the people rather than waiting for the people to ask for them on their own. They will have to adopt a people oriented

5) Effective and active coordination between the financial and developmental institutions is required. Clerical and non – technical staff requires power motivation so that they do not cause delays and harassment to the entrepreneurs.

6) It may be useful for the supporting agencies to prepare an inventory of viable project ideas. While estimating the viability of a project market prospects, row material sources and production casts should be considered. A realistic assessment of these key factors

will determine " whether the targets stated in the scheme are achievable within the parameters of the business environment and the entrepreneurs marginal capability.

Therefore, a sound professional consultancy service, consisting of recognised outside consultants and professional institutions, should be constituted. It will also reduce the burden of the supporting agencies who can follow - up the assisted units and exercise better financial control.

## 3.6 SINGLE WINDOW INDUSTRIAL SUPPORT SYSTEM [SWISS] :

An entrepreneur is a part of socio – economic system and interacts continuously with the environment. The development of an entrepreneur cannot, therefore, be considered simply a process of developing intrinsic worth and ability. Ultimately it is an exercise in developing support systems for new ventures. The individual who is the owner, manager in a small scale unit, is the crucial link or the spark plug in initiating the process of development at the micro level within the constraints of macro environment.

The identification, development and nurturing of entrepreneurial ventures is real entrepreneurial development. In the absence of institutional support and follow – up action, achievement training becomes fruitless. A decentratised institutional framework is necessary to promote entrepreneurship in all sectors and in all parts of the country. A beginning has been made by starting single window information, monitoring and guidance in the form of District Industries Centres ( DIC).

The District Industries Centres have been setup to provide all services and support to the entrepreneurs at the district level and under one roof. They represent an attempt to integrate all the Government functionaries in a single institution so that the D.I.C. can act as a focal point for the entire industrial growth of the district prior to the establishment of DICs, an entrepreneur had to approach several agencies, may of them outside his district.

The main functions of DICs are as follows –

1) To survey existing, traditional and new industries, raw materials and human resources.

2) To identify schemes and make market forecasts for different items.

3) To prepare sample techo. – economic feasibility reports and offer investment advice to entrepreneurs

4) To assess the machinery and equipment and to indicate the locations where the machinery and equipment for different plants may be available to the entrepreneurs.

5) To liaision with research institutions and arrange for the supply of machinery on hire – purchase basis.

6) To arrange training programmers for entrepreneurs in coordination with various institutions engaged in this activity.

7) To ascertain the raw material requirements of various units, their sources and prices and to arrange purchase of raw material for distribution among entrepreneurs.

8) To liaison with various financial institutions to arrange supply of financial assistance to the entrepreneurs.

9) To organise market surveys and market development programmes for conveying market intelligence to the entrepreneurs and to liaision with government procurement agencies for the marketing of products.

10) To give special attention to the development of Khadi and Village Industries Boards.

Most of the new projects get scuttled due to lengthy and cumbersome process of approval and clearance. The time involved in getting about a score of sanctions is so long that sometimes the project time is more than a year. The cost escalations on account of delays in sanctions take a very heavy toll on the new venture and the project may become sick even before it has actually gone operational. It is to overcome this problem that DIC scheme was created.

## 3.7 SUMMARY :

Entrepreneurial development has come to be recognised widely as the key to economic development and human welfare. Entrepreneurial skills are essential for industrialisation and for alleviating mass unemployment and poverty. In order to widen the base of entrepreneurship, the government of India offers financial assistance and training facilities.

Steps may be taken to make the institutional framework effective in creating and sustaining entrepreneurship.

- a structural change is the organisation of various institutions is required
- the financial institutions will have to adopt a people - oriented approach.
- effective and active coordination between the financial and developmental institutions is required.
- clerical and non technical staff requires power motivation so that they do not cause delays and harassment to the entrepreneurs.

Vigorous extention work in entrepreneurial awareness is required so that a large number of potential entrepreneurs approach SWISS rather than running from door to door for clearance and assistance. The support system has not only to promote entrepreneurship but also work out " turn around strategies " for sick units and provide incentives to "group entrepreneurship" in self employement schemes.

Ultimately it is the behavioural disposition of the functionaries of various institutions and agencies that shall determine whether institutional framework becomes a support system or not.

## 3.8 TECHNICAL TERMS :

1. Nurture = bring up
2. Escalation = moving high
3. Structure = building something made of various pieces, construction.
4. Liaision = connecting link

## 3.9 SELF- ASSESSMENT QUESTIONS :

1. Explain the problems faced by entrepreneurs for which they require the services of a support system.
2. Describe the support system for entrepreneurial development in India.
3. What are the weaknesses of support system for entrepreneurship in India.
4. Suggest measures for strengthening the present support system in our country concerned with entrepreneurial growth.

## 3.10 REFERENCE BOOKS :

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2. Vasant Desai – *Project Management*, Himalaya Publishing House, New Delhi, 2001.

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**Lesson – 4**

# GOVERNMENT POLICIES AND MEASURES TOWARDS PROMOTION OF ENTREPRENEURSHIP

## 4.0 OBJECTIVES :

After completion of this lesson, you should be able to understand –

- policies governing Entrepreneurship.
- economic realities
- state of the economy
- trade policy, devaluation
- New Industrial Policy – 1991
- the new SSI sector policy
- trade liberalisation

## STRUCTURE :

## 4.1 INTRODUCTION :

Industrial development plays a crucial role in India's development strategy, particularly with regard to the objectives of structural diversification, modernisation and self - reliance. The progress of industrialisation over the last forty-eight years been striking feature of the Indian economic development. More important, industrial policies lay stress on the strategy of development.

The scope for investment opportunity to entrepreneurs is enormously vast. Theoretically, an entrepreneur has an infinitely wide choice with respect to his projects. In identifying a feasible and promising product which is likely to benefit the society immensely, an entrepreneur has to understand the policies which govern entrepreneurship. The government ( Central or State ) policies are influence the entrepreneurs and motivate him to takeup entrepreneurial activities of the benefit of the societies. The entrepreneurial activity may either be in agriculture, industry, trade or service sector, these policies definitely influence.

## 4.2 GOVERNMENT KEY POLICIES :

As far as industrial manufacturing sector is concerned, the following policies influence entrepreneurs in a big way :

The key policies are :

1. The industrial policy resolution ;
2. The budget ;
3. The import and export policy ( popularly known as Exim. Policy ) ;
4. The Textile Policy.
5. The policy for development of Handloom and Handicrafts.
6. The policy for Khadi and Village Industries.
7. The policy for small scale industry and tiny sector.
8. The pricing policy.
9. The environment policy.
10. The labour policy
11. The Foreign Exchange and Foreign Investment Policy
12. The Industrial Estate Policy and Programme.
13. The Education and Health Policy.
14. The Policy towards, Promotion of Ancillary Industries.

The Industrial Policy Resolution is the segment which provides the framework for governmental regulations, control, promotion and direction. The resolution seeks to accelerate the rate of economic growth, speed up industrialisation and broad base the entrepreneurial skills.

## 4.3 ECONOMIC REALITIES :

The Indian economy is in shambles. The country is faced with balance of payment crisis, experiencing double digit inflation, and deficits trade, budgetary and fiscal galore. At the time, unemployment is spreading and poverty is deepening in Indian social fabric.

India's total external debt more than doubled from Rs 39,984 crore at the end of March 1986 to Rs. 99,458 crore in March 1991. During the last three and half year, India has got loans totalling over U.S.$ 13 Billion ( approx. Rs. 40,446 crore) in addition, Jan has announced a Rs.2,000 crore loan. Now, it has been estimated by the World Bank that India's foreign exchange debt has increased U.S. $ 72 billion, i.e., Rs. 1,83,000 crores. The disturbing aspect of this debt it has while the external assistance on soft terms has been increasing very slowly, commercial borrowings have disturbing aspect is of fast erosion of the foreign exchange reserves. They declined by Rs. 1,399 crore during 1990-91 as against a decline of 818 crore is 1989 –90. Domestically, inflation is in double digit and growth is stagnated. Indian economy's performance has been designed on many fronts.

The World Bank and the International Monetary Fund have been advocating moving towards a Prudent Fiscal Policy of controlled deficits, a Monetary Policy of using money to control inflation, radical trade policy and a competitive real exchange rate.

## 4.4 STATE OF THE ECONOMY :

There is a growing consensus the world over that the market driven welfare state is the best way of promoting prosperity with social justice. Even the countries in the Eastern Europe, Russia and China with their rigid Socialist System now extoll the virtues of market forces.

The World development report suggests the following do's for developing countries for activating a higher rate of growth irrespective of whether external conditions are supportive or not.

i) Invest in people, Government must spend more and more efficiently on primary education, basic health care, nutrition, and family planning. This requires shift in spending priorities.

ii) Help domestic markets to work well by fostering competition and investing in infrastructure.

iii) Liberalise trade and foreign investment which call for far fewer non – tariff restrictions, substantially lower tariffs, and a decisive move away from discretionary forms of control.

iv) A void excessive fiscal deficits and high inflation. Appropriate market based incentives for saving and investment are essential if domestic resources are to play their essential part in financing development.

## 4.5 ECONOMIC MEASURES :

The last few years have witnessed a policy reorientation towards economic deregulation and liberalisation of trade and industry. As a step in this direction, the new Congress government which came to power on June 21, 1991 took some corrective and bold decisions to tackle the harsh economic realities squarely.

The new government, whether under the dictates of the IMF and the World Bank or on account of its very many compulsions have introduced the following new policies covering trade, industry and small industry. The budget 1991, was also drawn to meet the strict requirements of the IMF and the World Bank.

## 4.6 THE OBJECTIVES :

The Objectives of the new economic measures announced by the new government are confidence, improve efficiency and competitiveness, increase production and give a boost to export, restrict imports, encourage entrepreneurs and remove hindrances of regulation and control, enhance employement opportunities and ease the balance of payment problem. This apart the new measures also aim at containing inflation and improving the living conditions of the people at all levels.

Among the other objectives, the growth of entrepreneurship is core theme of these economic measures. The entrepreneurs have a special role in improving the health of the economy and build a strong and front – ranking country both economically and technologically. Together they represent a historic change to attain the goals of growth with social justice.

A brief account of these far reaching changes which have greater bearing and influence on the entrepreneurs – growth and motivation has been made in this prologue. These new economic measures will provide a number of opportunities to first generation entrepreneurs and technocrats. The economic changes that have been introduced in July and August 1991 are :

**THE NEW ECONOMIC MEASURE – 1991**

| S.No. | Date | Measures | Main Trust |
|---|---|---|---|
| 1. | JUly 13, 1991 | Devaluation of Currency in Two Stages | - The Reserve Ban k of India effected exchange rate adjustments of the rupee by 18-20 percent aganist major currencies. |
| 2. | July 3, 1991 | Trade Policy | - The new policy is the first step towards linking all imports to exports and giving impetus to growth of exports to bridging the widening trade deficits. |
| 3. | July 24, 1991 | Industrial Policy, 1991 | - The Industrial Policy is a major step in decontrol. It would induce more competition, which in turn would change production patterns. New Capacities would be added and specialisation encouraged through foreign investment. |
| 4. | August 6, 1991 | The New Industrial Policy for Small Enterprises, Tiny Sectors | - The Principal thrust is no tospeed up modernisation of small enterprises, upgrade techology and draw them into the mainstream of industrialisation |
| 5. | August 13, 1991 | Supplementary Trade Policy, Trade Liberation | - Of incentives which expected to change the export environment in India. |

Note : This is only the beginning, as it were, of a process towards a market – oriented economy with lesser governmental intervention in the entrepreneurial endeavours.

## 4.7 DEVALUATION :

On July 1 and 3, 1991, the Reserve Bank of India effected exchange rate adjustments in which the value of the rupee declined by about 18-20 percent against major currencies. A downward adjustment or the exchanges rate of the rupee was essentially to stem the drain of foreign exchange reserves and to meet the liquidity and financial problem. Secondly to the fundamental imbalances on the trade and current account, discourage Indians who use foreign exchange for consumption and concourage people to earn more foreign exchange. The immediate gain of devaluation was that it made possible the end of cash assistance to exports requiring a budgetary allocation of over Rs. 2500 crores, which involved much paperwork and kick backs. The long term aim is to stop the waste, inefficiency and corruption competitiveness of our exports and bring about a reduction in the trade and current account deficits.

## 4.8 TRADE POLICY :

On July 3, 1991, the Minister of State for Commerce announced a pragmatic and bold trade policy. Accordingly, export subsidies ( about Rs. 2,700 crores for 1990 – 91). we slashed and introduced a uniform replenishment (REF) rate of 30 percent on all earnings. The new policy also linked all imports, except exports like crude oil and petroleum products, fertiliser, edible oil etc. REP licences are now called Exim SCRIPS and will be freely tradable, eventually by financial institutions.

The new trade policy slashes clearances and tests and greatly reduces the scope for discretion and corruption. Instead it institutes lagerely automatic mechanism that stimulate exports and discourage imports and like the two in a manner,which should eventually make a convertible rupee feasible.

## 4.9 INDUSTRIAL POLICY - 1991 :

The Government of India announced a New Industrial Policy on July 24, 1991. It was a bold step in the direction of streamlining the setting up of new units and simplifying procedures for expantion of existing enterprises. This policy aimed at the following objectives :-

i) Unshackle the Indian Industrial Economy from unnecessary bureaucratic controls.

ii) To correct the distortions or weaknesses involved in the policy.

iii) To abolish restrictions on direct foreign investment.

iv) To Liberalise home industry from restrictions of M.R.T.P. Act.

v) To maintain a sustained growth in productivity.

vi) To reduce the load of public sector enterprises.

**Features of New Policy :**

The main features of the New Industrial Policy are discussed as follows :

1. **Abolisation of Industrial Licensing:** In order to Liberalise the economy and to bring transparency in the policy, the new policy has abolished the system of industrial licensing except for 18 industries. The industries under licensing will be only due to reasons of security and strategic concerns, social reasons, hazardous chemicals and over riding environmental concerns and items of elitist consumption. The industries under licensing are coal and liquite, petroleum and its distillation products, distillation and brewing of alcoholic drinks, Sugar, Animal Fat and Oils, Cigars and Cigarettes of Tobacco and manufactured tobacco substitutes, asbestos and asbestos based products, plywood and decorative veneers and other wood based products, raw hides and skins, leather, charmois leather and pateret leather, tanned and dressed skins, motor car, paper and new spring electronic aerospace and defence equipment, industrial exlosives, hazardous chemicals, drugs and pharmaceuticals, entertainment electronics, white goods such as domestic refrigerator, washing machines, microwave ovens and air conditioners.

   The compulsary licensing provision would not apply in respect of the Small Scale Units taking up the manufacture of any of the above items reserved for exclusive manufacture in the Small Scale sector.

2. **Role of Public Sector :** The Public Sector enterprises were not showing good results inspite of huge investment. Government wanted to restructure this sector and make it competitive with private sector. The new policy reduced the list of industries from 18 to 8 reserved for public sector. The industries reserved for this sector are ; Defence Equipment, Atomic Energy, Coal and Lignite, Mineral Specified in schedule of atomic energy, Rail Transport, Industries Reserved for public sector will gradually be opened to private sector. A part of government share holding in public sector units will be offered to mutual funds , Financial Institutions, Workers and the General Public. Government wants that this sector should work on business lines.

3. **Concessions from Monopolies Act :** The new policy states that the pre – entry scrutiny of investment decisions by so called MRTP company will no longer be required. It was not necessary to obtain approval of the centre for expansion, established of new undertakings, merger, amalgamation and take over appointment of directory under certain circumstances. The emphasis now will be placed on controlling and regulating monopolistic restrictive and unfair trade practices. MRTP commission was authorised to initiate investigations suo moto on complaints received from individual consumer or class of consumer in regard to monopolistic, restrictive and unfair practices.

4. **Foreign Investment and Technology :** The new policy prepared a list of 34 industries where automatic permission will be available for direct investment upto 51 percent foreign equity. The industries included in this list were metallurgy, boiler and steam generating plants, electrical equipment, telecommunication equipments, transportation, industrial and agricultural machinery, chemicals, food processing, hotel, tourism industry. Trading companies primarily engaged in export activities will be given upto 51 percent foreign equity. Automatic permission will be given for foreign technology agreements. No permission will be required for foreign technicians or for testing of indigenously developed technology of abroad.

5. **Location Policy Liberalised :** The new policy mentioned that in location other than cities of more than 10 lakh population no industrial approvats from the centre will be required except for industries subject to compulsory licensing. In cities with more than 10 lac population, industries other than those of non – polluting in nature will be located outside 25 kms. of its periphery.

6. **Abolition of Phased Manufacturing Programmes :** In order to increase indianisation, a phased manufacturing programme was enforced earlier. The new policy has totally abolished such programmer as the government feels due to there is no need to reforce such programmes.

7. **Convertibity :** Financial Institutions had the option of converting their loans into equity shares. This option is resented by the industry. The new policy abolished this clause.

## 4.10 THE NEW SSI, TINY SECTOR POLICY :

Cottage and small industries occupy an important place in Indian Economy. These industries have considerably contributed in the sphere of employment and production. Government of India is giving a special consideration for the small scale sector. Various economic policies aim at the growth and development of small sector so as to bring about an all round development in the country.

**Government Measures For SSI :**

Recently, the approach of government towards cottage and small industries has undergone a sea change. A number of measures have been taken for the development of this sector.

The new policy for small and tiny enterprises has allowed equity participation by other industrial undertakings in small – scale industries ( SSIs ) upto 24 percent of their total shareholding.

Other main features of the new policy are as follows :

1. Legislation to ensure payment of SSI bills.
2. Act to limit new/non – active partner's liability to the capital invested.
3. Credit demand of the SSIs to be fully met, a cell to be created to ensure this.
4. Permission to other units to invest up to 24 percent in the SSI.
5. Lunch of Factoring services by SIDBI
6. Tin sector investment limit raised to Rs 5 laks.
7. Relaxation to the tiny sector from certain unspecified labour laws.
8. Composite loans under the single window scheme also to be given by banks.
9. Tiny Sector to be accorded priority in government purchase programme.
10. Services Sector to be recognised as tiny sector.
11. Priority to SSIS and tiny units in allocation of indigenous raw materials.
12. Promise to deregulate and debureaucratise Small and Tiny Sector.

13. Package for handloom and handicraft sector.
14. Janata cloth scheme to be replaced by a new scheme which will provide funds for loom modernisation.
15. Compulsory quality control for products that pose risk to health and life.
16. Investment limit of ancillary units and export oriented units to M 75 lacs.
17. PSUs and NSIC to help marked products through consortia approach both domestically and internationally.

The new policy for small and tiny enterprises has several welcome features and indicates a reorientation of policy on crucial issues like speedy modernisation, upgradation of technology, availability of cheap, adequate and timely credit and quality control and draw them into the main steam of industrialisation.

## 4.11 TRADE LIBERALISATION :

A new package of incentives for the 100 percent export – oriented units ( EOUs) and export Processing Zones ( EPZs), strengthening of the advance licensing system to provide exporters with duty – fee access, to inputs, foreign currency accounts for established exporters, decanalisation of several export and import items and a reorientation of the office of Chief Controller of Imports and Exports ( CCIE) are some of the major highlights of the supplementary trade policy package announced by the government on August 13, 1991.

Following are the highlights of the trade policy statement made by the union commerce minister in the Lok Sabha on August 13, 1991.

- advance licensing system strengthened with streamlining of producers and cutting down of the number of documents from nine to three where norms are prescribed and to four where there is none.
- substantial manufacturing activity as a necessary proviso under the advance licensing scheme no longer apply.
- a new scheme of transferable advance licence for general currency area introduced in thrust areas like textiles, leather goods and engineering.
- procedure for obtaining bank guarantee ( BG ) and legal undertaking ( LUT) from different categories of exporters steam lined and liberalised.
- six items of imports such as silk worms, sodium borate, old ships, fluorspar, platinum and palladum decentralised and put under OGL.
- Export houses, trading houses and star trading houses given leeway to import wide range of items against additional licences.

## 4.12 SUMMARY :

Over the years, the government has formulated a number of policies governing industrial development in India. This has made the task of the entrepreneur much easier. However, frequent

changes in government policies affect entrepreneurs severally. The government should minimise these changes. It is also needed to formulate a comprehensive policy to all sectors of industry. There is a need for integration of trade and industrial policy to all sectors of industry. There is a need for integration of trade and industrial policy. The public sector should be managed by entrepreneurs instead of burevcrats. There is also need for minimum Political interference. Liberalisation process should be phased in such a manner that entrepreneurs are least hit. A deepening and windening of the recent initiatives would further increase competition and industrial flexibility, thereby sustaining and further raising the growth rates of manufacturing. Given the vision and a determined will, Indian industry will rise to the challenges of the nineties.

## 4.13 TECHNICAL TERMS :

Extoll = Praise enthusiastically.

Convertibitily = Change from one form or use to another.

Liberalisation = Make less strict, Flexible.

## 4.14 SELF ASSESSMENT QUESTIONS :

1. Describe Government policies and measures towards promotion of entrepreneurship.
2. What are the objectives of New Industrial Policy 1991 ? How it help the entrepreneurs.
3. Discuss the Industrial policy adopted in India for Small and Tiny Sector Industries.
4. Describe the New Industrial Policy of 1991 for small scale sector. Has this policy helped the small scale sector.

## 4.15 REFERENCE BOOKS :

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2. Sharma R.K; Gupta Shashi.K. – *Industrial Organisation and Management,* Kalyani Publishers, New Delhi, 2003.
3. Vasant Desai – *Project Management*, Himalaya Publishing House, New Delhi, 2001.

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**Lesson – 5**

# INSTITUTIONAL SUPPORT TO ENTREPRENEURS (DICs AND INDUSTRIAL ESTATES )

## 5.0 OBJECTIVES :

After completion of this lesson, we should be able to understand –

- Need for institutional support
- District Industries Centres ( DICs)
- Functions of ( DICs)
- Industrial Estates – Need – Purpose – Scope objectives
- Industrial Estates in India

## STRUCTURE :



## 5.1 INTRODUCTION :

Starting a business or industrial unit - say, 'enterprise' in short – requires various resources and facilities. Small Scale Enterprises, given their small resources, find it difficulty to have these their own. Finance has been an important resource to start and run an enterprise because it

facilities the entrepreneur to produce land, labour, material, machine and so on from different parties to run his/ her enterprise. Admittedly, finance is an important resources but not the only condition to run an enterprise. In order to start any economic activity, a minimum level of prior build – up of infrastructural facilities is needed. Financial assistance and concessions cannot, in any case, adequately compensate for the deficiencies of infrastructure such as transport and communication. This is one of the reasons why industries have not been developing in backward areas in spite of financial assistance and concessions given by the Government to the entrepreneurs to establish industries in backward areas.

Creation of infrastructural facilities involves huge funds which the small entrepreneurs do lack. In view of this, various Central and State Government institutions have come forward to help small entrepreneurs in this regard by providing them various kinds of support and facilities. Availability of the institutional support helps make the economic environment more conducive to business or industry. Now, what follows in the subsequent pages is the various kinds of support and facilities provided by various institutions to the entrepreneurs to help them establish industries. Those are DICs, Industrial Estates etc.

## 5.2 DISTRICT INDUSTRIES CENTRES ( DICs) :

The District Industries Centres ( DICs) programme was started on May 8, 1978 with a view to provide integrated admistrative framework at the district level for promotion of Small – Scale Industries in rural areas. The DICs are envisaged as a single window interacting agency with the entrepreneur at the district level. Services and support to small entrepreneurs are provided under a single roof through the DICs. They are the implementing arm of the Central and State Governments of the various schemes and programmes. Registration of small industries is done at the district industries centres. The SEEUY/ PMRY for employement generation is also implemented by the DICs.

The organisational structure of DICs consists of one General Manager, four Functional Managers and three project managers to provide technical service in the area relevant to needs of district concerned. Management of the DICs is done by the State Governments. The scheme has now been transferred to the states and from the year 1993-94, funds will not be provided by the Central Government to the States for running the DICs.

### 5.2.1. Functions of DICs :

The DICs role is mainly promotional and developmental. To attain this, they have to perform the following main functions :

- To conduct industrial potential surveys keeping in view the availability of resources in terms of material and human skill, infrastructure, demand for product, etc. To prepare techno- economic surveys and identify product lines and then to provide investment advice to entrepreneurs.
- To prepare an action plan to effectively implement the schemes identified.
- To guide entrepreneurs in matters relating selecting the most appropriate machinery and equipment, sources of its supply and procedure for procuring imported machinery, if needed, assessing requirement for raw materials etc.

- To appraise the worthiness of the various proposals received from entrepreneurs.
- To assist the entrepreneurs in marketing their products and assess the possibilities of ancillarisation and export promotion of their products. –
- To undertake product development work appropriate to small industries.
- To conduct artisan training programmes.
- To function as the technical arms of DRDA in admistering IRD and TRYSEM Programmes.

Till March 31, 1988, 422 District Industries Centres ( DICs) have been setup covering 431 districts of the country leaving out the Metropolitan Cities and some new Districts. Table 5.1. bears the information on progress made by the DICs in the Country.

**Table 5.1 : Progress of DICs : A Glance**

| | |
|---|---|
| 1. New Units Established | 1986 – 1987 |
| a) Artisans | 3,16,199 |
| b) Small Scale Industries | 1,06,211 |
| 2. Credit Provided by Financial Institutions ( Rs. in Crores) | 89,080 |
| 3. Additional Employement Generated | 13,33,024 |

## 5.3 INDUSTRIAL ESTATES :

Industrial Estates is yet another institutional measure to promote industrialisation in the country. In India, industrial estates have been utilised as an effective tool for the promotion and growth of Small – Scale Industries. They have also been used as an effective tool, to decentralise industrial activity to rural and backward areas. Industrial estates are also known by different names, e.g., industrial region, industrial park, industrial area, industrial zone, etc.

### 5.3.1. Definitions :

Let us consider a few definitions on industrial estates given by different authors and agencies.

According to **P.C. Alexander**, “An Industrial Estate is a group of factories, constructed on an economic scale in suitable sites with facilities of Water, Transport, Electricity, Steam, Bank, Post office, Canteen, Watch and ward and First aid, and provided with special arrangements for technical guidance and common service facilities”.

In the opinion of **Bredo**, “ An Industrial Estate in a tract of land which is sub divided and developed according to a comprehensive plan for the use of a community of Industrial Enterprises”.

The **United Nations** has defined an Industrial State as “ a planned clustering of enterprises, offering standard factory buildings crected in advance of demand and variety of services and facilities to the occupants”.

Thus, an Industrial Estate is a place where the required facilities and factory accommodation are provided by the Government to the entrepreneurs to establish their industries there.

### 5.3.2. Types of Industrial Estates :

Industrial Estates are classified on various bases. The prominent ones are :

1. **On the Basis of Functions :** On the basis of functions, Industrial Estates are broadly classified into two types –
    i) General type industrial estates, and
    ii) Special type industrial estates.

**General Type Industrial Estates :** These are also called as Conventional or Composite Industrial Estates. These provide accommodation to a wide variety and range of industrial concerns. The Indian Industrial Estates are mainly of this type.

**Special Type Industrial Estates :** This type of Industrial Estates are constructed for specific industrial units, which are vertically or horizontally interdependent.

2. **On the Basis of Organisational Setup. :** On the basis, Industrial Estates are classified into following four types –
    i) Government Industrial Estates,
    ii) Private Industrial Estates.
    iii) Co-operative Industrial Estates, and
    iv) Municipal Industrial Estates

3. **On the Basis of other Variants :** On the basis of other Variants, industrial estates are classified into following types –
    **i) Ancillary Industrial Estates :** In such industrial estates, only those Small – Scale units are housed which are ancillary to particular large industry. Examples of such units are like one attached to the HMT, Bangalore.
    **ii) Functional Industrial Estates :** Industrial units manufacturing the same product are usually housed in these industrial estates. These industrial estates also serve as a base for expansion of small units into larger units.
    **iii) The Workshop – bay :** Such types of industrial estates are constructed mainly for very small firms engaged in repair work.

### 5.3.3. Objectives of Industrial Estates :

The main objectives of the establishment of industrial estates are :

i) to provide infrastructure and accommodation facilities to the entrepreneurs:
ii) to encourage the development of small-scale industries in the country,

iii) to decentralise industries ; to the rural and backward areas,

iv) to encourage ancilarisation in surrounding major industrial units; and

v) to develop entrepreneurship by creating a congenial climate to run the industries in these estates / areas township etc.

## 5.4 INDUSTRIAL ESTATES IN INDIA :

One of the major handicaps faced by small-scale industries in India has been either back of insufficient infrastructures facilities. In order to provide small, scale units the ready - made buildings/factory sheds at subsidized rates, infrastructure facilities and the proximity of other industrial units, the idea of establishing industrial estates was first adopted in India by the Small-Scale Industries Board [SSIB] at its meeting help in January 1955. As a result, the first industrial estate in India was set up at Rajkot in Gujarat in September 1955. Since then, there is no looking back. By now, the number of industrial estates in the country had gone up to more that 650-making it the largest programme of its kind in the world.

The objectives tagged to the programme included to give a boost to the growth of small-scale industries in the country, to disperse industry outside the metropolitan towns, to relocate existing units operating in congested areas/to provide sub-contracting opportunities to small industry and to improve operational efficiency of small units through common facilities. However studies, report findings contrary to it. The outside units have performed better than units working inside the industrial estates. The reasons held responsible for poor performance of industrial units working inside the industrial estates were:

- Lack of essential infrastructure facilities such as roads, power and water.
- Lack of common facilities such as a tool room, heat treatment, or testing.
- Lack of realistic survey prior to the establishment of the estate.
- Lack of a clear idea about the relevance of products to the area.
- Lack of local involvement and active participation in the programme.

Added to these problems was that the most of the estates were “general purpose estates"

Added to these problems was that the most of the estates were “general purpose estates" in diverse product groups having no organic relationship between them. As such, the possibility of establishing common production facilities was highly limited. Hence, in order to forge organic relationship between them, the Industrial Estates Programme was motified on two counts. Firstly, the estates were set up on a functional basis in specific product areas like electronics, leather and rubber or as ancillary to a present unit- such as HMT (Bangalore), BHEL (Bhopal) or ECIL (Hyderabad) etc. Secondly, in the matter of finding, the estates become either co-operatives or the government merely development land and the entrepreneur has no build his shed according to an approved type design.

Now, how to take this noble programme more effective to boast the growth of small-scale industry in the country. An industrial estate alone cannot create industry. It is not a magic wand. The following factors, according to a survey conducted by UNIDO, are essential to make the industrial estate programme effective in developing countries including India.

## 5.5 ESSENCIAL FACTORS OF EFFECTIVE INDUSTRIAL PROGRAMME:

i) Existence of a large number of small firms or artisan shops in appropriate industrial sectors;

ii) Entrepreneurs willing and able to take advantage of the facilities offered by the industrial estates;

iii) A nucleus of skilled workers;

iv) Government agencies with skills and funds to plan and administer the programme;

v) Financial institutions willing to give credit to the units, and

vi) Availability of adequate infrastructure in terms of water, electricity and transport.

## 5.6 SUMMARY:

Finance as life-blood is important but not a magic wand to run an enterprise. For example, financial assistance and concessions cannot, in any case, adequately, compensate, for the deficiencies of infrastructure. Therefore, the Government – both central and state-have set up several institutions and centres to support small entrepreneurs to establish their units.

The supportive facilities and services rendered by these institutions and centres (DICs, and Industrial Estates) include project appraisals, construction of infrastructure facilities, distribution of raw materials, provision for machinery on hire-purchase scheme, reservation of items for production by small-scale industries, rendering consultancy and training services, conducting Entrepreneurship Development Programmes (EDPs), undertaking industrial potential surveys, etc.

## 5.7 TECHNICAL TERMS:

Industrial Estates = Group of factories constructed on an economic scale.

Infrastructure = facilities of water, land, transportation electrical, steam, bank, post office etc. to an industry.

Variants = different form

Ancillary = subordinate

Congenial = suitable

## 5.8. SELF - ASSESSMENT QUESTIONS:

1. What is a District Industries Centres ( DICs) ? Explain the functions of the DICs,
2. Define Industrial Estates. Appreciate the need for industrial estates and give on account of performance and problems of industrial estates in India.
3. Explain the following

   (A) DIC's (B) Industrial Estates.

## 5.9. REFERENCE BOOKS:

**1.** S.S. Khanka – *Entrepreneurial Development* ; S. Chand & Company Ltd, New Delhi, 2004.

**2.** Vasant Desai – *Dynamics of Entrepreneurial Development and Management,* Himalaya Publishing House, New Delhi, 1992.

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**Lesson - 6**

# LOCATION OF AN ENTERPRISE

## 6.0 Objectives:

After completion of this lesson, we should be able to understand:

* economic size
* importance of Location - steps
* selecting general area
* factors influencing the location of projects

## Structure:



## 6.1 Introduction:

The selection of site and equipment are important aspects of a project to derive maximum operative economy and effectiveness. An ideal site and equipment certainly contributes to the smooth and efficient functioning of an enterprise. It not only saves on costs but also enhance productivity and profits. Location is also an important factor determining the ultimate success or failure of a small - scale unit.

## 6.2 Economic Size:

For each project, there exists a certain minimum economic size below which the project will not be viable. It may so that in the case of some acute scarcity products, a project even below the economic size may appear to be viable in the immediate future, but if a long-term view is taken, it

may not be viable. The minimum economic size of a project varies from industry to industry, depending upon the nature of product to be manufactured, complexity of the manufacturing process, size of the market, availability of raw material equipment, and other factors of production, particularly capital and labour. The concept of economic size of a project is also linked with inflationary pressures on the unit cost of investment and technology adopted.

In a continuous processing unit, the minimum size of a plant would be determined by technology as also the size of the plant/equipment available while in a jobbing unit, the size of the plant will depend on the product mix, location of the project, availability of skilled labour, cost of infrastructural inputs and quantum of bought - out finished and semi-finished components. The scale of a project is, therefore, examined keeping in view the technological efficiency, cost of production, size of the likely market and capital cost. The various factors may, however, be conflicting and, therefore, while deciding on the scale of operation, certain compromises may have to be made. For instance, when the likely demand for the product is not adequate to justify the size of the project, it would be necessary to compromise on the technological efficiency criteria and choose a lower scale of operation sacrificing thereby a part of technological efficiency.

Various alternatives are often evaluated for project phasing in terms of either the size of the plant or the extent of integration. When eventually the market develops, the size of the project can be increased appropriately by backward or forward integration.

Other factors which have an important bearing on the economic size of the project are the cost structure and availability of infrastructure facilities. In view of these factors, it might often be necessary to compromise with projects of smaller capacity and shorter gestation period vis-a-vis large capacity plants involving huge investments and long gestation periods. Thus, in each and every case, the economic size of the project is analysed carefully by the appraising financial institutions and it is ensured that neither the project is too small nor too ambitions. If a project is found to be of an uneconomic size, the borrower is advised at the initial stage itself so that it might be possible for him to modify his scheme and make it an economically viable and acceptable proposition. It may be mentioned here that the institutions also ensure that the licensed capacity of a plant is expressed in terms of physical quantities and not in terms of monetary value as per the directions of the Central Government.

## 6.3 Importance of Location:

Location is also an important factor determining the ultimate success or failure of a small scale - unit. On it may depend the small industry's ability to obtain an adequate and regular supply of its raw materials at a minimum cost, to maintain a sufficient labour force, and to serve satisfactorily its customers. In spite of its importance, many small entrepreneurs in the past did not pay much attention to the problem of proper location of their units. In choosing a plant location, the entrepreneurs would do well to well to follow the undermentioned steps:

(i) Selection of the region;

(ii) Selection of the exact

(iii) Selection of an optimum site.

Location of any project is sometimes determined by government licensing regulations and not by the choice of the promoters. However, since location is an extremely important aspect for ensuring commercial success of an enterprise, appraisers evaluate location in relation to availability

of raw materials, power, labour, fuel, transport, market and other infrastructure needs. The social infrastructure facilities such as availability of housing and education, medical and recreation facilities also become important, particularly if skilled personnel have to be attracted from outside. In the case of certain projects involving sophisticated technology, availability of testing and research facilities are also taken into consideration. The weightage given to different aspects depends upon the type of industry. Water and power availability, for example are the major factors examined particularly in relation to a power and water-intensive project. Generally, the power-intensive units are not encouraged to be set-up in areas having a chronic power shortage. In the case of export oriented projects, location near a port might prove advantageous.

## 6.3.1 Factors influencing Selection of Location:

Factors influencing selection of location may be shown in the table as given below:

**Table 6.1**

**Factors Affecting Location of an Enterprise**

| S. No. | (A) Selection of Region | (B) Selection of Community | (C) Selection of Site | (D) Optimum Selection of Site |
|---|---|---|---|---|
| (i) | Availability of raw material | (i) Availability of Labour | (i) Sail size and topography | Optimum site is selected on the basis of a comparative economic survey of the alternative sites in questions. |
| (ii) | Nearness of Market | (i) Civic aminitees for workers | (ii) Disposal waste | |
| (iii) | Availability of power | (iii) Existence of complementary and competing industries | (iii) Price of land | |
| (iv) | Transport facilities | (iv) Finance and Research Facilities | (iv) Health of locality | |
| (v) | Suitability of climate | (v) Availability of water and fire fighting facilities | (v) Attitude of Local people | |
| (vi) | Government Policy | (vi) Local Taxes and restrictions | (vi) Technological knowhow | |
| (vii) | Competition among States | (vii) Management of easy sort. | (vii) State Assistance | |
| | | (viii) Personal factors | | |

Generally speaking if the value-added component is not high, the project may be located near the source of raw material but for projects manufacturing high valueadded products, a wide choice in respect of location is available as the products can bear the to and fro transportation, cost of raw materials and finished products.

## 6.4 Weber's Theory of Industrial Location:

The Weber's Theory of Industrial Location is based on the following basis:

(1) The materials used by an industry can be classified into ubiquitous and localised materials.

The ubiquities are those raw materials which are available everywhere, like brick, clay and water. The localised materials are those which are available in certain localities only, like minerals, fuel etc.

The localised materials are further divided into (1) weight-losing or gross materials. The weight losing materials are those which considerably lose weight during the manufacturing process (e.g., coal and other minerals) as opposed to pure materials like cotton or wool.

(2) The situation and size of places of consumption are given, with the market comprising a number of separate points.

(3) There are certain fixed lobour locations and labour is immobile, wage rates may vary from location to location but in each location supply of labour is unlimited at the given wage rate.

**Weber's** theory divides the factors influencing industrial location into the following two:

(i) The general regional factors of transport and labour costs. These general regional factors are regarded as the primary causes affecting industrial location.

(ii) The local factor of 'agglomerative' or 'deglomerative' forces regarded as the secondary causes responsible for redistribution of industries.

The location of an industry is determined by the interaction of the two sets of factors.

The limitations of the **Weber's** theory of industrial location are:

(1) The theory is based on three wrong assumptions about labour supply;

(2) Transport cost depend on the made of transport, nature of goods etc;

(3) Location and size of markets may vary with changes in the economy;

(4) Non-economic factors also exert important influence on industrial location;

(5) The theory ignores the role of capital and entrepreneurship in industrialisation;

(6) The classification of materials is not proper.

## 6.5 Selecting General Area:

The importance factors, which should be taken into account in the selection of a site are:

**(i) Availability of Raw Material:** The region in which an SSI unit is proposed to be set-up should provide atleast a greater part of the raw material require, thus ensuring a continuity of supply at reasonable price.

**(ii) Availability of Skilled and Unskilled Labour:** It has to be seen whether proper labour required is available in the area. If labour is brought from other areas, its cost would go-up.

**Table 6.2**

**The Important Factors in the Selection of a Site**

| Sl. No. | | Selection of region | Selection of locality | Selection of site |
|---|---|---|---|---|
| 1. | Availability of raw material | XXX | | |
| 2. | Nearness to markets | XXX | | |
| 3. | Availability of power | XXX | | |
| 4. | Transport facilities | XXX | | |
| 5. | Suitability of climate | XXX | | |
| 6. | Government Policy | XXX | | |
| 7. | Competition between status | | | |
| 8. | Availability of labour | | XXX | |
| 9. | Civic amenities for workers | | XXX | |
| 10. | Finance and research facilities | | XXX | |
| 11. | Availability of water and fire fighting facilities | | XXX | |
| 12. | Local Taxes and restrictions | | XXX | |
| 13. | Momentum of an early start | | XXX | |
| 14. | Personal factors | | XXX | |
| 15. | Soil, size and topography | | | XXX |
| 16. | Disposal of waste | | | XXX |
| 17. | Housing facilities for workers | | | XXX |
| 18. | Unencumbered land | | | XXX |
| 19. | Good Scenery | | | XXX |
| 20. | Road, rail and water connections | | | XXX |

**(iii) Nearness to the Source of Motive power:**

The area should provide cheap power, soft water and adequate sewage disposal facilities.

Power failure has been one of the important reasons for industrial breakdowns in the small-scale sector.

### (iv) Nearness to Market:

If production meant for self-consumption the location of a small scale industry is determined solely by considerations of availability of raw materials, power and labour. If its production is for the market, its nearness to market has also to be taken into account.

### (v) Availability of Transport Facilities:

Transport cost has often been a decisive influence in the choice of location. In making a selection, the factor to be consider is the availability of transportation facilities at a reasonable cost.

### (vi) Nuisance Problems:

If there are any special "nuisance" problems connected with an industry smoke, noise, odour, or smog-an arrangement for their control should either be available or necessary controls should be installed.

### (vii) Suitability of Climate:

Although the natural climate as a factor has lot its importance following rapid technological advances, small-scale industries have yet to pay adequate attention to this factor. Climate does influence the product and its quality.

## 6.6 Factors Influencing the Location of Projects:

Broadly speaking, there are two types of measures that may be advocated or adopted for influencing the location of projects. The first set of measures may be called positive measures to encourage the growth of certain areas by offering to the industrialists various inducements. Some of which have been listed above. The techniques of setting up industrial estates and export processing zones has been widely used as a means of simulating growth in certain areas. The other set of measures to be adopted by the authorities includes negative measures to discourage the setting up of projects in certain areas. The other set of measures to be adopted by the authorities includes negative measures to discourage the setting up of projects in certain areas. The first set of measures refers to the various inducements extended to the industrialists to set up their projects in certain specified areas, whereas the second set of measures imposes restrictions on the location of projects in certain congested areas. In the actual operation of the policy, as experience suggests, both sets of measures are necessary for the purpose of an effective location policy. During a given period, the total number of projects to be developed stood limited. In other words, the resources available for industrial projects, for instance, were limited. If more resources are invested in projects in one regions of the country. Thus a combined use of both positive and negative measures is of importance.

If a policy of industrial location with view to achieving decentralisation and dispersal is accepted on economic, social, political and environmental grounds, then there is a strong case for setting up a machinery for the administration of the policy. The machinery should exist at the central, regional and local levels to deal with the problems of regional or local industrial development.

Among the important factors relating to industrial location, state incentives also play a key role. Although central incentives and subsidies assists growth of enterprises in the country, it is the State incentives which attract entrepreneurs to set up their enterprises in particular States/Union Territories. The objectives of State incentives is to provide assistance and facilities to allure and motivate techno-entrepreneurs, Entrapreneurs and first generation entrepreneurs to locate their ventures in their region. State incentives must be so devised as to synchronise, private incentives with social returns in an efficient, cost-effective manner that simultaneously promote moral imperatives. To the extent state incentives are a tool, no less than a programme, they make industrialisation and growth of entrepreneurship a reality. The nature of assistance, however, varies from State to State.

**Table 6.3**

**STATE INCENTIVES**

| Incentives offered | Small-Scale-Industry | Medium and large-scale-industry |
|---|---|---|
| 1. Feasibility study subsidy | Subsidy to a ceiling of 75% of the cost of preparing the report up to a maximum of Rs.5,000. | Loan of 75% of the cost of preparing feasibility report upto a maximum of Rs.50,000. |
| 2. Investment Subsidy | 10 percent of value of fixed assets, subject to a ceilling of Rs.5 lacks | 10 percent of the value of fixed assets,subject to a ceilling of 10 lacks |
| 3. Development loan | Overall ceilling of 25 percent of the value of fixed assets. | For zone II, 10 percent of the value of fixed assets to a maximum of Rs.50 lacks and for zones III & IV, 15% of the value of fixed assets, subject to a maximum of Rs.50 lacks. |
| 4. Working capital loan | Interest-free loan offered, subject to a ceilling of 25% of the value of fixed assets or the development loan taken whichever is less. | Interest-free loan, subject to a maximum of Rs.50 lacks |
| 5. Procurement of know-how | It shall be reimbursed in full, subject to a maximum of Rs.25,000 | 50% of the paid by new units for for procurement of know-how shall be subsidised upto a ceilling of Rs.1 lack |
| 6. Stamp duty exemption and reduction in registration fee. | Exemption on a stamp duty for executing agrement with K.S.F.C. There is also reduction fee of Rs.1 per 1.00 for registering the agreement deeds. | Same as in the case of small scale industries |
| 7. Subsidy on housing | Subsidy at the rate of Rs.1500 per house of build -up area of not less than 300 sq. ft. shall be offered for the new units, who have plans to build houses for the employees | Same as in the case of small-scale industries. |

## 6.8 Location Policy:

Location policy has also been significantly amended. In location other than cities of more than one million population, there is no requirement of obtaining industrials approvals from the Central Government except for the industries under compulsory licensing. In respect of cities with population greater than one million, industries other than those of a non-polluting nature such as electronics, computer software and printing, may be located outside 25 kms. of periphery of urban areas, except if they are located in designated industrial areas, except if they are located in designated industrial area, prior to 25.7.1991. Zoning and Land use Regulations and Environmental Legislation continue to regulate industrial locations.

## 6.8 Summary:

Among other things, the entrepreneurs has to give special emphasis to the location of his project, equipment and layout to derive maximum benefits. Selection of site and equipment is governed by various variables. Taking into consideration all these aspects, the entrepreneur has to select the site and equipment for his enterprise.

The selection of the most economical site is possible where an entrepreneur prepare a comparative cost statement, taking into account the different sites available. Certain recent trends in plant location are now discemible. These are: (1) To locate plants away from cities. (2) The development of industrial estates; (3) Competition among states to develop industries; (4) Rend towards decentralisation; (5) Pollution control; (6) Location of industries leading to balanced regional development; and (7) Growth of multinational firms, there by transcending the geographical area of the country.

A critical evaluation of the industrial location, policies reveals that a thorough overhauling is required in the approach toward location of industries based on economics of scale and marketing.

In the years ahead, industrial location will be guided primarily by commercial considerations and sustainability rather than by regulatory or social demands alone. An investment which does not maximise the generation of surplus cannot contribute to the country's social goals. Thus, location in backward regions where there is a great deal of willingness and native skill amongst the first generation workers provides very attractive scenario to the decaying environment of cities where industry has been traditionally located.

## 6.9 Technical Terms:

| | | |
|---|---|---|
| Location | = | a placing |
| Procurement | = | act or an instance of procuring out of buying |
| Feasibility | = | practicable, that can be done faire |

## 6.10 Self-Assessment Questions:

1. What is meant by Location? How to select a good location of an enterprise.
2. Define Location? What factors influencing the selection of location?
3. What is meant by Weber's Theory of Industrial Location?

## 6.11 Reference Books:

1. Vasant Desai, *Project Management*; Himalaya Publishing House, New Delhi, 2001
2. Dr. C.B. Gupta and Dr. N.D. Srinivasan;*Entrepreneurship Development in India,* Sultan Chand & Sons, New Delhi, 2002

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**Lesson - 7**

# PROVISION OF INFRASTRUCTURE FACILITIES WITH REGARD TO FINANCING

## 7.0 Objectives:

After completion of this lesson, we should be able to understand:

* importance of infrastructure in industries
* scope, significance and characteristics
* infrastructure projects in India
* typical project configuration
* key project parties
* project contracts

## Structure:



## 7.1 Introduction:

Infrastructure includes the capital required to produce economic services from utilities, (like electricity, gas, telecommunications, and water) and transport works (roads, bridges, urban transit systems, seaports and air ports) and is central to promoting economic activity. Good infrastructure helps in providing economic services efficiently, promotes economic competitiveness, and supports

high productivity, poor infrastructure on the other hand, impedes economic growth and can be seriously detrimental to the efficient use of scarce resources.

Infrastructure projects, which typically provides essential services, have one or more of the characteristics mentioned below:

* They are highly capital - intensive. For example, a 500 MW Power Plant may cost Rs.200 million.
* They involve huge sunk costs
* They have a long operating life.

The vital role of infrastructure in the economy, the essential nature of its services, the size of the individual projects, and its important social dimensions call for governmental role in planning, promoting and regulating the sector. When projects are operational, the role of the government can be determined by the ownership and the operational structure of the concerned project.

## 7.2 Infrastructure Projects in India:

Traditionally, infrastructure projects in India were owned and managed by the government or government undertaking. Given the massive investments required in infrastructure, which plays a pivotal role in economic development, there is now a broad consenses that private sector participation in this activity must be encouraged.

Private initiative in infrastructure projects can take many forms, ranging from contracted operation of public utilities to full ownership, operation and maintenance of these facilities. Some of the principal objectives of promoting private investment in the development and operation of infrastructure projects and ensuring greater economic efficiency and better availability of the facility itself. Depending on their nature, however, infrastructure projects are either more or less suitable for private participation and the level of such participation can be varied to reflect the same. Projects that are designed to provide significant social benefit such as low cost urban transportation systems may be more suited to traditional government ownership. Whereas projects that have strong commercial attraction, like telecommunication, are more suited for private sector involvement.

Infrastructure financing is different from conventional project financing, primarily because most infrastructure projects are in the nature of private-public partnerships, and evaluation of projects requires a careful understanding and analysis of the complexities inherently embedded in such partnerships. Especially in transitional economics which are attempting to emerge from a historical environment where infrastructure was traditionally planned, developed, financed, implemented, and operated by the government and Public Sector to a newer environment where private initiative in infrastructure holds the key to its rapid growth, project financiers need to carefully evolute if a framework (regulatory, legal, financing) to support such initiatives exist.

Ownership and operations of infrastructure projects are separable and a variety of models exist to meet characteristics of projects and regulations. A typical example is an electronicity generation project which the private sector builds, owns, operates for a certain period of time (called the “concession period”) and finally transfers back to the government (this concept is called Boot) whereas,

say for a road project, the private sector may be invited simply to build the facility, operates it during the concession period and finally, at the end of the concession period, transfer the facility back to the government (BOT) without actually ever owning the same. In the latter case, the ownership of the road remains with the government and the private sector recovers its investment and a return thereon by charging a levy on users of the road during the concession period.

## 7.3 Various aspects of Infrastructure Financing:

The aspects of infrastructure financing divided into six sections as follows:

* Typical Project Configuration.
* Key Project Parties
* Financing a Power Project
* Financing Telecommunication Projects.

### 7.3.1 Typical Project Configuration:

Given the complexity of risks that need to be managed during the construction and operations phase of an infrastructure project, project sponsors have tended to follow some simple arrangements while implementing these projects.

Infrastructure projects can be financed at a relatively higher gearing (i.e. debt equity) ratio vis-a-vis conventional projects, especially if offtake is assured by bankable entities. For example in Indian road projects, where private enterprise would construct, operate and maintain the road during the concession period and would earn an assured annuity from the National Highways Authority of India (NHAI) irrespective of the actual level of traffic, lenders may be willing to consider higher gearing of upto 4:1. In power projects where offtake was assured to the extent of a certain Plant Load Factor (PLF) by the concerned SEBs, lenders have traditionally financed on a debt equity ratio (DER) of 2.33:1. For large conventional projects, where the project and hence the lenders are expressed to commercial risks, a typical DER would be in the 1:1 to 1:2 range.

In infrastructure projects parties is to ensure that contracts are as ironclad as possible and as less left to subjective interpretation. The objective of the contracts is to establish project related obligations for each project party and ensure that certain risks are allocated to those parties who are in the best portion to manage the risk. At the project development and financing stages, it is therefore important to have experienced financial and legal advisors who will advice who will advice the SPV and the sponsors on appropriate risk allocation and ensure that the legal and structural framework to enable the risk allocation is correctly defined.

### 7.3.2 Key Project Parties:

As the project moves from the developmental stages to financing and thereafter to construction and finally to operations, several project parties get involved with the project. Some, like the financial advisors, exit once the financing is fully tied up and the project has drawn down loans from the leaders and equity from the investors, while others like the EPC contractor is extensively associated with the project during the construction phase and by contract during the “Defect Liability Period” post commercialisation of the project.

### 7.3.3 Project Contracts:

A Project Company is unusual in the sense that it is setup to undertake a single project. However, there is nothing unusual about the parties that participate in the project. All companies have equity shareholders, lenders, contractors, suppliers and customers, and all deal with the government. The key differentiating feature of project finance is the manager in which project risks are allocated to various parties involved in a project.

### 7.3.4 Financial Structure and Corporate Governance:

Many argue that the essence of project finance is the web of contracts meant to ensure that all parties work in concert, for the success of the project, to distribute risks efficiently, and to prevent the abuse of monopoly power.

This argument is valid but incomplete as it does not explain the organisational structure, the ownership structure, and the financial leverage of the project. Put differently it does not explain why the project is handled as a separate company, why operators, contractors, suppliers and consumers typically participate in the equity of the project company, and why the project company relies heavily on debt in the form of non-resource financing or limited resources financing. Indeed a government interested in a certain infrastructure project can raise money on its own and enter into contracts with various parties.

### 7.3.5 Financing A Power Project:

An electricity generation project is an example of an infrastructure project. In such a project the SPV owns the generation assets and enters into a Power Purchase Agreement (PPA) with the SEB. Since the SEB purchases all the power generated by the SPV, the PPA, which establishes the conditions under which electrical energy would be sold by the SPV and purchased by the SEB and conditions by which payments would be secured, is amongst the most important contracts that needs to be negotiated and executed. By means of a contract, the state government guarantees the payment obligations of the SEB.

### 7.3.6 Financing Telecommunication Projects:

Telecommunication projects are characterised by large project costs, a virtually continuous project implementation (or roll-out), long gestation periods, and a dispersed customer base that exposes the project to commercial risks and requires significant marketing and selling budgets. In telecom projects, in practice there can be no single COD - companies typically commercialise certain areas where the equipment is installed and as the company's reach expands with time, each geographical territory can be commercialised.

In telecom, gestation periods are significate and could range from 3 to 5 years. As the project adds subscribers over a period of time, revenue increases and the project turns profitable. This is unlike a power project, which, on COD, can ramp up to maximum utilisation. Unlike a power project which generates reasonably flat revenues and profitability over its life, telecom projects, by virtue of their continued implementation and increase in subscriber base demonstrate increases in profitability over a period of time.

In general, telecom projects incur cash losses in its initial years and these need to be funded. In determining a Telecom Projects Cost, lenders follow the concept of "Peak Negative Cash Flow Period", which determines the maximum period over which the project requires external cash

injection and the total external financing requirements during such a period, the project requires external cash injection and the total external financing requirements during such a period. During this period, the project cost would typically include equipment cost, land and buildings cost, entry fees, preoperative expenses, interest during construction, conturgencies, working capital margin, and net cash losses and it would be financed by debt, connection charges and customer deposits; and equity.

Private telecom projects operate under a license from the Department of Telecom and the projects framework is determined by the conditions of the licence. Projects pay a onetime entry fee and a revenue share as licence fees. In addition, the licence imposes certain obligations in terms of rural/village telephony and coverage of the territory, the cost of which needs to be factored into the project cost. Licenses are fairly standard for different for different operators, except to the extent demanded by the differences in territories.

### 7.3.7 Telecom Regulations:

Lenders need to take a view on and be comfortable with emerging telecom regulations which may change from time to time. As a market gets deregulated and private sector commences roll out, there is likely to be pressure on regulators to frame policies which may favour either incumbents or new entrants. As such, while lenders and investors seek a certain level of stability in the regulatory framework, it is likely that more often than not, regulations and the regulatory framework would undergo continued shifts and project lenders would be required to take an educated view on how regulations would evolve, rather than expect complete stability. To this extent, the work of the project financier become more difficult.

## 7.5 Summary:

Infrastructure projects, which typically provide essential services, have one or more of the characteristics mentioned below: (a) They are highly capital - intensive, (b) They involve sunk costs, (c) They have a long operating life.

While traditionally infrastructure projects in India were owned and managed by the government undertaking, there is now a broad consensus that private sector participation in this activity must be encouraged.

The key features of project finance which appears to the principal arrangement for private sector participation in inrastructure project are as follows: (i) The project is set up as a separate company which is granted a concession by the government, (ii) The sponsor company which promotes the projects usually takes a substantial stake in the equity of the project and enjoys the overall responsibility for running the project, (iii) The project company enters into comprehensive contractual arrangements with various parties like contractors, suppliers and customers, (iv) The project company employs a high debt - equity ratio, with lenders having to recourse or limited recourse to the sponsor company or to the government in the event of default.

The key differentiating feature of project finance is the manner in which project risks are allocated to various parties involved in the project. Through a comprehensive web of contracts, every major risk inherent in the project is allocated to the party/parties that is best able to assess and manage that risk.

## 7.5 Self-Assessment Questions:

1. Define infrastructure facilities and explain its importance in an a project.
2. Explain infrastructure facilities in India and explain various aspects of infrastructure financier.
3. What are the features of a Telecom Project.
4. Describe briefly the things that project financiers in telecom projects consider.

## 7.6 Reference Books:

1. Prasanna Chandra; *Projects* - TATA McGraw-Hill Publishing Company Ltd., New Delhi - 2004;
2. S.K. Misra and V.K. Puri; *Indian Economy,* Himalaya Publishing House, New Delhi, 2003.

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## Lesson - 8

# TECHNICAL ASSISTANCE

## 8.0 Objectives:

After completion of this lesson, we should be able to understand:

* important of technical assistance
* technical arrangements
* material and inputs
* product mix
* plant capacity
* location and site
* machineries and equipments
* structure and civil works

## Structure:

## 8.1 Introduction:

Analysis of technical and engineering aspects is done continually when a project is being examined and formulated. Other types of analysis are closely intent wined with technical analysis.

The broad purpose of technical assistance is (a) to ensure that the project is technically feasible in the sense that all the inputs required to set up the project are available, and (b) to facilitate the most optical formulation of the project in terms of technology, size, location, and so on.

While technical analysis is essentially the pressure of the technical expert, the financial analyst participating in the project appraisal exercise should be able to raise basic issues relating to technical analysis using common sense and economic logic.

This lesson covers these issues very broadly. It is organised into eight sections as follows:

* manufacturing process/technology
* technical arrangements
* material and inputs
* product mix
* plant capacity
* location and site
* machineries and equipments
* structure and civil works

## 8.2 Manufacturing Process/Technology:

For manufacturing a product/service often two or more alternative technologies are available.

For Example:

* Steel can be made either by the Bessemer process or the open hearth process.
* Cement can be made either by dry process or the wet process.
* Soda can be made by the electrolysis method or the chemical method.
* Paper, using bagasse as the raw material, can be manufactured by the Kraft process or the soda process or the simon cusi process.
* Vinyl chloride can be manufactured by using one of the following reactions; acetylene on hydrochloric acid or ethylene on chlorine.
* Soap can be manufactured by the semi boiled process or the fully boiled process.

### 8.2.1 Choice of Technology:

The choice of technology is influenced by a variety of considerations:

* Plant Capacity
* Principal Inputs

* Investment outlay and production cost
* Use by other units
* Product mix
* Latest developments
* Ease of obsorption

**Plant Capacity:** Often, there is a close relationship between plant capacity and production technology. To meet a given capacity requirement perhaps only a certain production technology may be viable.

**Principal Inputs:** The choice of technology depends on the principal inputs available for the project. In some cases, the raw material available influence the technology chosen. For example, the quality of limestones determines whether the wet or dry process should be used for a cement plant.

**Investment Outlay and Production Cost:** The effect of alternative technologies on investment outlay and production cost over a period of time should be carefully assessed.

**Use by other Units:** The technology adopted must be proven by successfully use by other units, preferably in India.

**Product Mix:** The technology chosen must be judged in terms of the total product - mix generated by it, including saleable by products.

**Ease of Absorption:** The case with which a particular technology can be absorbed can influence the choice of technology. Sometimes a high - level technology may be beyond the absorptive capacity of a developing country which may lack trained personnel to handle that technology.

## 8.3 Technical Arrangements:

Satisfactory arrangements must be made to obtain the technical know-how needed for the proposed manufacturing process. When collaboration is sought, inter alia, the following aspects of the agreements must be worked out in detail.

* The period of the collaboration agreement
* Approach to be adopted in force majecure situations.
* Assignment of the agreement by either side in case of change of ownership.
* Termination of the agreement or other remedies when either party fails to meet its obligations.

## 8.4 Material Inputs and Utilities:

An important aspect of technical analysis is concerned with defining the materials and utilities required, specifying their properties in some details, and setting up their supply programme. There is an intimate relationship between the study of materials and utilities and other aspects of projects formulation, particularly those concerned with location, technology, and equipments.

Material inputs and utilities may be classified into four broad categories: (i) raw material, (ii) processed industrial materials and components, (iii) auxiliary materials and (iv) utilities factory supplies.

### 8.4.1 Raw Material:

Raw materials (processed and/or semi-processed) may be classified into four types (i) agricultural products, (ii) mineral products, (iii) live stock and forest products, and (iv) marine products.

## 8.5 Product Mix:

The Choice of product mix is guided by market requirements. In the production of most of the items, variations in size and quality are aimed at satisfying a broad range of customers. For example, a garment manufacturer may have a wide range in terms of size and quality to cater to different customers. It may be noted that variation in quality can enable a company to expand its market and enjoy higher profitability. For example, a toilet soap manufacturing unit may, by variation in raw material, packaging and sales promotion, offer a high profit margin soap to consumers in the upper-income brackets.

While planning the production facilities of the firm, some flexibility with respect to the product mix must be sought. Such flexibility enables the firm to alter its product mix in response to changing market conditions and enhances the power of the firm to survive and grow under different situations. The degree of flexibility chosen may be based on a careful analysis of the additional investment requirement for different degrees of flexibility.

## 8.6 Plant Capacity:

Plant capacity (also referred to as production capacity) refers to the volume or number of units that can be manufactured during a given period. Plant capacity may be defined in two ways: Feasible Normal Capacity (FNC) and Nominal Maximum Capacity (NMC). The feasible normal capacity refers to the capacity attainable under normal working conditions. This may be established on the basis of the installed capacity, technical conditions of the plant, normal stoppages, downtime for maintenance and tool changes, holidays, and shift patterns. The nominal maximum capacity is the capacity which is technically attainable and this often corresponds to the installed capacity guaranteed by the supplier of the plant. Our discussion will focus on the feasible normal capacity. Several factors have a bearing on the capacity decision. These are.....

* Technical Requirement
* Input Constraints
* Investment Cost
* Market Conditions
* Resources of the firm
* Governmental Policy

## 8.7 Location and Site:

The choice of location and site follows an assessment of demand, size, and input requirement. Though often used synonymously, the terms ‘location’ and ‘site’ should be distinguished. Location refers to a fairly broad area like a city, an industrial zone, or a coastal area; site refers to a specific piece of land where the project would be set up.

The choice of location is influenced by a variety of considerations: proximity to raw materials and markets, availability of infrastructure, labour situation, governmental policies and other factors.

## 8.8 Machineries and Equipment:

The requirement of machineries and equipment is dependent on production technology and plant capacity. It is also influenced by the type of project. For a process - oriented industry, like a petrochemical unit, machineries and equipment required should be such that the various stages are matched well. The choice of machineries and equipment for a manufacturing industry is somewhat wider as various machines can perform the same function with varying degrees of accuracy. For example, the configuration of machines required for the manufacture of refrigerators could take various forms. To determine the kinds of machinery and equipment required for a manufacturing industry, the following procedure may be followed : (i) Estimate the likely levels of production over time, (ii) Define the various machining and other operations, (iii) Calculate the machine hours required for each type of operation, (iv) select machineries and equipment required for each function.

The equipment required for the project may be classified into the following types; (i) Plant (process) equipment, (ii) Mechanical equipment, (iii) Electrical equipment, (iv) Instruments, (v) Controls, (vi) Internal transportation system and (vii) Others.

In addition to the machineries and equipment, a list should be prepared of spare parts and tools required. This may be divided into: (i) Spare parts and tools to be purchased with the original equipment, and (ii) Spare parts and tools required for operational wear and tear.

## 8.9 Structures and Civil Works:

Structures and civil works may be divided into three categories: (i) Site preparation and development, (ii) buildings and structures, and (iii) Outdoor works

### (i) Site Preparation and Development:

This covers the following: (i) grading and leveling of the site; (ii) demolition and removal of existing structures; (iii) relocation of existing pipelines, cables, roads, power lines, etc; (iv) reclamation of swamps and draining and removal of standing water; (v) connections for the following utilities from the site to the public network; electric power (high tension and low tension), water for drinking and other purposes, communications (telephone, telex, internet, etc), roads, railway sidings; and (vi) other site preparation and development work.

### (ii) Building and Structures:

Building and structures may be divided into (i) Factory or process buildings; (ii) ancillary buildings required for stores, warehouses, laboratories, utility supply centres, maintenance services, and others; (iii) administrative buildings, (iv) staff welfare buildings, cafeteria, and medical service building; and (v) residential buildings.

### (iii) Outdoor Works:

Outdoor works cover (i) supply and distribution of utilities (water, electric power, communication, steam, and gas); (ii) handling and treatment of emission, wastages, and effluents; (iii) transportation and traffic signals; (iv) outdoor lighting; (v) landscaping; and (vi) enclosure and supervision (boundary wall, fencing, barriers, gates, doors, security posts etc.)

## 8.10 Environmental Aspects:

A project may cause environmental pollution in various ways; it may throw gaseous emissions; it may produce liquid and solid discharges; it may cause noise, heat, and vibrations.

Projects that produce physical goods like cement, steel, paper and chemicals by converting natural resource endowments into soleable products are likely to cause more environmental damage. Hence the environmental, aspects of these projects have to be properly examined.

## 8.11 Project Charts and Layouts:

Once data is available on the principal dimensions of the project - market size, plant capacity, production technology, machineries and equipment, buildings and avail works, conditions obtaining at the plant site, and supply of inputs to the projects - project charts and layouts may be prepared. These define the scope of the project and provide the basis for detailed project engineering and estimation of the investment and production costs.

## 8.12 Schedule of Project Implementation:

As part of the technical analysis, a project implementation schedule is also usually prepared. For preparing the project implementation schedule the following information is required.

* List of all possible activities from project planning to commencement of production.
* The sequence in which various activities have to be performed.
* The time required for performing the various activities.
* The resources normally required for performing the various activities.
* The implications of putting more resources or less resources than are normally required.

**Work Schedule:** The work schedule, as its name suggests, reflects the plan of work concerning installation as well as initial operations. The purpose of the work schedule is:

* To anticipate problems likely to arise during the installation phase and suggest possible means for coping with them.
* To establish the phasing of investments taking into account the availability of finances.
* To develop a plan of operations covering the initial period (the running-in-period).

## 8.13 Need for Considering Alternatives:

The need for considering alternatives has been touched upon earlier. This point, however, needs to be emphasised. There are alternative ways of transforming an idea into a concrete project. These alternatives may differ in one or more of the following:

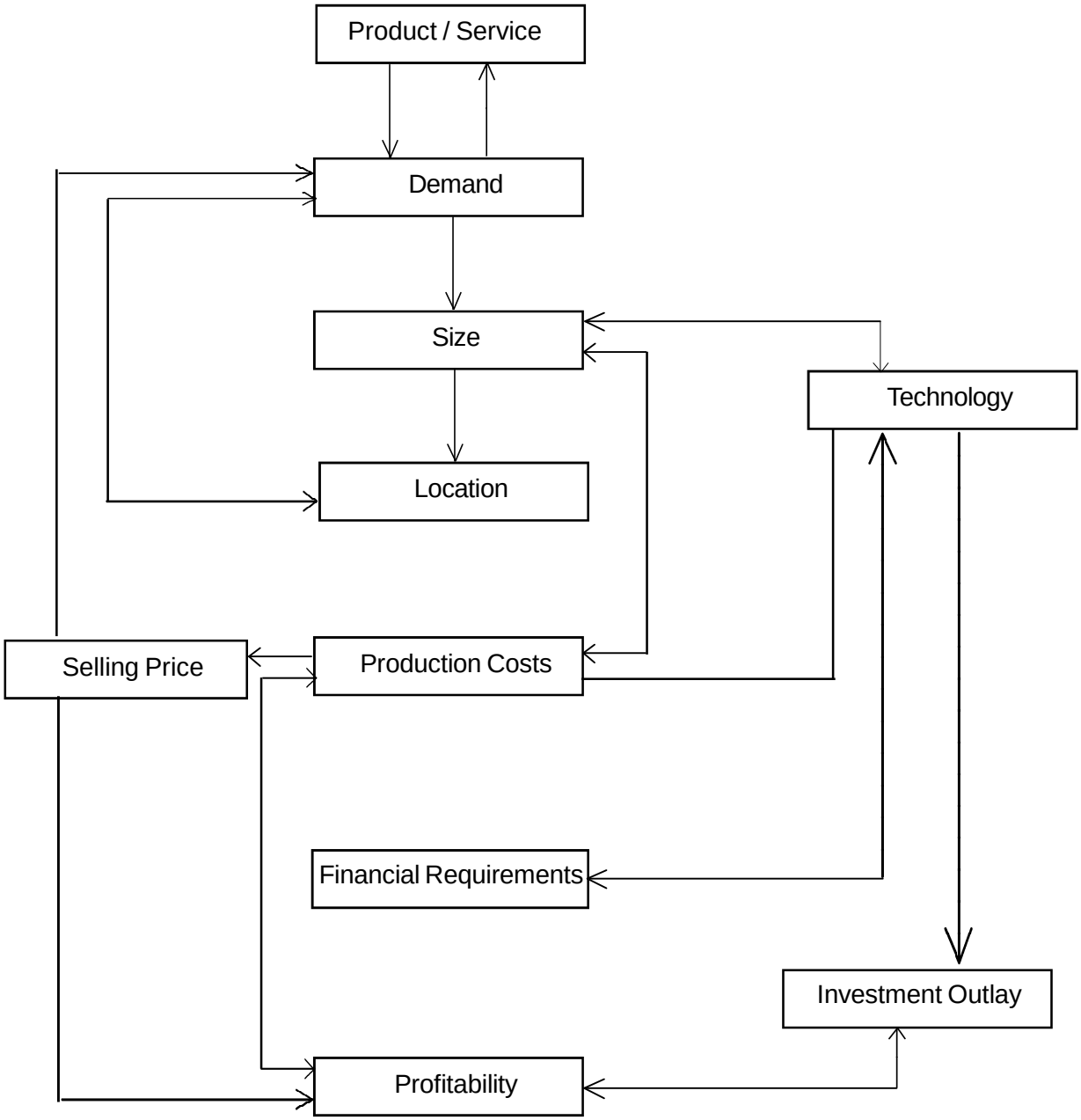
* Nature of Project
* Production Process
* Production Quality
* Scale of operation and time phasing.

## 8.14 Key Project Inter-Linkages:

While evaluating various alternatives, the inter-linkages among key facets of the project like product (or service) demand, plant capacity, production, technology, location, investment outlay, financial resources, production costs, selling price, and profitability must be borne in mind.

Exhibit 8.1 : Shows these inter-linkages pictorially:

**Exhibit 8.1 : Key Project - Linkages**



## 8.15 Summary:

* For manufacturing a product/service often two or more alternative technologies are available. The choice of technology is influenced by a variety of considerations; plant capacity, principal units, investment outlay, production cost, use by other units, product mix, latest developments, and case of absorption.

* Satisfactory arrangements have to be made to obtain the technical know-how needed for the proposed manufacturing process.

* An important aspect of technical analysis is concerned with defining the materials and inputs required, specifying their properties in some detail and setting up their supply programme. Materials may be classified into four broad categories, (i) raw materials, (ii) processed industrial materials and components, (iii) auxiliary materials and factory supplies, and (iv) utilities.

* The acquisition of technology from some other enterprise may be by way of (i) Technology Licensing, (ii) outright purchase, or (iii) joint venture arrangement.

* Appropriate technology refers to those methods of production which are suitable to local, economic, social, and cultural conditions.

## 8.16 Self-Assessment Questions:

1. What factors have a bearing on the choice of technology.

2. How would you evaluate the appropriateness of a technology?

3. List the key issues to be covered in a technical collaboration arrangements.

## 8.17 Reference Books:

1. Prasanna Chandra; *Projects,* TATA McGraw Hill Publishing Company Limited, New Delhi, 2004.

2. Satish Taneja XSL. Gupta; *Entrepreneur Development, New Venture Creation,* Golgotia Publishing Company, New Delhi-2003.

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**Lesson - 9**

# FINANCIAL ASSISTANCE

## 9.0 Objectives:

After completion of this lesson, we should be able to understand:

* importance of finance to the Enterprises
* Commercial Banks - Assistance to Enterprises
* ICICI Bank, SFC's
* SIDO and other financial institutions

## Structure:



## 9.1 Introduction:

Finance is one of the essential requirements of any enterprise. Before actually setting up their units, small entrepreneurs need to know very clearly about the type and extent of their financial requirements. Integral to financial requirements is to know about the possible alternative sources from which finance can be availed of. Given the shortage or lack of entrepreneurs' own funds/ resources the Government of India as a part of its policy of promotion of small-scale sector in the country has setup a host of institutions to meet the financial requirements of small entrepreneurs.

## 9.2 Commercial Banks:

The Scheduled Commercial Banks (SCBs) in the Country (288) comprise the State Bank of India (SBI) and its Associated Banks (8), Nationalised Banks (19), Private Sector Banks (32), Regional Rural Banks (RRBs) (196) and Foreign Banks (23). During 1994-95, ten more banks were given the status of SCB and One, Viz. Bank of Karad which was taken over by Bank of India was excluded. As on March 31, 1995, the total number of branches of SCBs stood at 62,067, of these 35,060 (56.5% of the total) were in rural areas.

For a long period, Commercial Banks not come forward to extend financial assistance to the Small-Scale Industries because of the SSIs weak economic base. The first lead in this regard was taken by the SBI, in consultation with the Reserve Bank of India (RBI), in March 1956 by setting up a pilot scheme for the provision of credit for small scale industries. In the beginning, the scheme was confined to 9 branches of the SBI which was later extended to all branches of the SBI. The Commercial Banks started taking initiation in financing SSIs in a greater way only after the bank nationlisation in July 1969. Normally, the Commercial Banks provide assistance for working capital requirements of SSIs. Over the years, they have also started providing 'term' finance as is indicated by the data complied by the RBI that of all the advances given to SSIs by the Commercial Banks, the share of the term loan accounted for nearly 30%. A notable feature in the financing or SSIs has been the introduction of the "Lead Bank Scheme" by the RBI. Under this scheme, each district has been allotted to one scheduled Commercial Bank for intensive development of banking facilities.

The introduction of 'Credit Guarantee Scheme', in 1960, was a big fillip in the field of Commercial Bank financing to SSIs. Initially, this scheme was introduced in 22 districts on experimental basis. Later, it was extended to all over the country. Further, the RBI set up a committee under the Chairmanship of Shri P.R. Nayak, to look into the adequacy of institutional credit to SSIs. Based on the recommendations of the Committee, the RBI introduced a special package of measures for financing SSIs and advised banks to take various measures aimed at increasing the credit flow to the SSIs and arresting the problem of sickness in small-sector. Availability of credit to the SSI sector improved further with the stipulation on foreign banks to extend atleast 10% of their net bank credit to the SSI sector and to deposit the shortfall, if any, with the Small Industries Development Bank of India (SIDBI). According to the figures released by the Industrial Development Bank of India (IDBI), the outstanding gross bank credit to industrial sector stood at Rs.102953 crores as on March 31, 1995 of which Rs.27,612 crores (27% of total) were given to the SSIs by the Commercial Banks. It is interesting to mention that the bank credit to small sector as a percentage to total bank credit is on increase year after year. For example, it increased from 22% in March 1993 to 27% in March 1995.

## 9.3 Industrial Credit and Investment Corporation of India Ltd. (ICICI):

The Industrial Credit and Investment Corporation of India Ltd. (ICICI) was set up in January 1955 under the Indian Companies Act with the primary objective of developing small and medium industries in the private sector. Its issued capital has been subscribed by the Indian banks, Insurance Companies and the individuals and corporations of the United States, the British Eastern Exchange Bank and other companies and general public in India.

The ICICI performs the following functions:

(i) It provides assistance by way of rupee and foreign currency loans, underwriting and direct subscriptions to shares/debentures and guarantees.

(ii) It offers variety of financial services such as deferred credit, leasing credit, instalment sale, asset credit and venture capital.

(iii) It guarantees loans from other private investment sources.

The ICICI has recently set up a Merchant Banking Division which is working very creditably. It has also set up ICICI Asset Management Company Ltd. in June 1993 to operate the schemes of the ICICI Mutual Fund. Yet another subsidiary called ICICI Investors Services Ltd. (March 1994) and ICICI Banking Corporation Ltd. (January 1994) have started operations.

Assistance sanctioned by the ICICI during 1994-95 increased by 77.4% to Rs.15,065 crore, while disbursements went up by 55.9% to Rs.6,879 crore. Cumulatively, upto end March 1995, sanctions amounted Rs.53,307 crore and disbursements aggregated Rs.30,595 crore. The ICICI assists all sectors, that is, the private sector, the joint sector, the public sector and the co-operative sector. It is worth mentioning that the private sector continued to claim the largest share (90.1%) of ICICI, sanctions during 1994-95, distantly followed by Public Sector (4.6%), Joint Sector (4.1%) and Co-operative Sector (1.2%). Thus, the major beneficiary of the ICICI's assistance is the Private Sector mainly comprising of small scale units.

## 9.4 State Financial Corporation (SFCs):

The Industrial Finance Corporation of India (IFCI) set up in 1948 used to provide financial assistance to only large-sized industrial undertaking. In order to cater the financial requirements of a large number of small-scale units, the State Financial Corporation Act was passed by the parliament on September 28,1951 under which the State Financial Corporations (SFCs) could be setup. The first SFC was set up in Punjab in 1953. Today, there are in all 18 SFCs in the country which exist almost in every state and Union Territory (UT) of the country. Of these 17 are setup under the SFCs Act, 1951. The Tamilnadu Industrial Investment Corporation Ltd., established in 1949 under the Companies Act as Madras Industrial Investment Corporation, also functions as a full-fledged SFC. The management of the State Financial Corporation is similar to that of the IFCI. It has a Board of Directors, a Managing Director and an Executive Committee. An SFC can open its offices at different places within the state.

The main functions of SFCs has been to provide long-term finance to small and medium sized industrial units organised as proprietary, partnership, co-operative, public or private company concerns. Its other functions are to undertake the issue of stock, shares, bonds or debentures of industrial concerns and to grant loans and advance to industrial concerns repayable within a period not exceeding 20 years. They also subscribe to debentures floated by the industrial concerns. SFCs also grant financial assistance to small road transport operators, hotels, tourism-related activities, hospitals and nursing homes, etc.

Total assistance sanctioned by SFCs during 1994-95 aggregated Rs.2760 crores. Disbursements amounted to Rs.2005 crore. On a cumulative basis, upto end-March 1995, SFCs sanctioned an aggregate assistance of Rs.19,350 crore and disbursed a sum of Rs.15,337 crore.

Aggregate assistance sanctioned by SFC to small-scale comprising of Small-Scale Industries (SSIs) and Small Road Transport Operators (SRTOs) amounted to Rs.1992 crore. The share of SSIs in total sanctions accounted for 90.1% in 1994-95. Cumulatively, upto end March 1995, sanctions to small-scale sector aggregated to Rs.15,499 crore accounting for 80.1% of the total sanctions, while disbursements amounted to Rs.12,515 crore constituting 81.6% of total disbursements.

As regards the purpose-wise assistance, assistance sanctioned to the new projects during 1994-95 continue to claim the largest share (68.5%) in SFC's sanctions distantly followed by expansion/diversification (22.2%). The balance was accounted for by modernisation/balancing equipment, rehabilitation and other purposes.

## 9.5 State Industrial Development Corporations (SIDCs):

The State Industrial Development Corporations (SIDCs) were incorporated under the Companies Act, 1956, in the sixties and early seventies as wholly-owned State Government undertakings for promoting industrial development.

The main function of SIDCs are to provide assistance in the form of term-loans, underwriting direct subscription to shares/debentures and guarantees. They also undertake a variety of promotional activities like preparation of feasibility reports, conducting industrial potential surveys, entrepreneurship development programmes and developing industries estates. Some SIDCs also offer a package of developmental services such as technical guidance, assistance in plant locations and co-ordination with other agencies. In line with the changing environment, many SIDCs are making efforts to diversify and entering into the fields of equipment leasing, merchant banking, venture capital and mutual funds.

There are 28 SIDCs in the country. Aggregate to assistance sanctioned by all SIDCs during 1994-95 amounted to Rs.1511 crore and disbursements amounted for Rs.984 crore. Cumulatively, upto end-March 1995, the total assistance sanctioned by SIDCs stood at Rs.9774 crore, while disbursements amounted to Rs.7126 crore. Total sanctions to backward areas up to end-March 1995 accounted for Rs.5,000 crore (constituting 51.2% in total sanctions) and disbursements amounted to Rs.3942 crore (constituting 55.3% in total).

The bulk of the sanctions was claimed by the Private Sector (81.1%), followed by Joint Sector (13.2%), Public Sector (5.5%) and the Co-operative Section (0.2%). As regards purpose wise assistance, the new projects had the largest share (59.4%) in total sanctions, distantly followed by expansion/diversification (22.2%), modernisation/balancing equipment (9.3%) and supplementary assistance (8.4%), sanctions for rehabilitation constituted the balance.

## 9.6 Small Industries Development Organisation (SIDO):

Small Industries Development Organisation (SIDO) is a subordinate office of the Department of SSI & ARI. It is an apex body and nodal agency for formulating, coordinating and monitoring the policies and programmes for promotion and development of small-scale industries. Development Commissioner is the head of the SIDO. He is assisted by various directors and advisers in evolving and implementing various programmes of training and management consultancy, industrial investigation, possibilities for development of different types of small-scale industries, development of industrial estates, etc. The main functions of SIDO are classified into

(i) coordination

(ii) Industrial development and

(iii) extension

These functions are performed through a national network of institutions and associated agencies created for specific functions at present.

The SIDO functions through 27 offices, 31 Small Industries Service Institutions (SISI), 37 Extension Centres, 3 Product-Cum-Process Development Centres, and 4 Production Centres.

All small-scale industries except those falling within the specialised boards and agencies like KVIC, Coir Boards, Central Silk Board, etc. fall under the purview of the SIDO.

The main functions performed by the SIDO in each of its three categories of functions:

**Functions Relating to Co-ordination:**

* To evolve a national policy for the development of small scale industries.
* To co-ordinate the policies and programmes of various State Governments.
* To maintain a proper liaison with the related Central Ministries, Planning Commission, State Governments, Financial Institutions etc. and
* To co-ordinate the programmes for the development of Industrial estates.

**Functions Relating to Industrial Development:**

* To reserve items for production by Small-Scale Industries;
* To collect data on consumer items imported and then, encourage the setting of industrial units to produce these items by giving coordinated assistance,
* To render required support for the development of ancillary units, and
* To encourage small scale industries to actively participate in Government Stores Purchase Programme by giving them necessary guidance, market advice and assistance.

**Functions Relating to Extension:**

* To make provision of technical services for improving technical process, production planning, selecting appropriate machinery, preparing factory lay-out and design.
* To provide consultancy and training services to strengthen the competitive ability of small-scale industries;
* To render marketing assistance to small-scale industries to effectively sell their products, and
* To provide assistance in economic investigation and information to small-scale industries.

## 9.7 Summary:

Finance as life-blood is important but not a magic wand to run an enterprise. For example, financial assistance and concessions cannot, in any case, adequantely compensate for the deficiencies of infrastructure. Therefore, the government - both central and state - have set up several institutions and centres to support small entrepreneurs to establish their units.

## 9.8 Self-Assessment Questions:

1. Discuss the need for institutional support to small-scale industries.
2. Discuss the Role of ICICI Bank in improving entrepreneurship.
3. Discuss the role of APIDC an APSSIC in improving entrepreneurship.
4. State the need for financial institutions for small enterprises. Discuss the role of 'SFC'.

## 9.9 Reference Books:

1. S.S. Khanke, *Entrepreneurship Development;* S. Chand & Company - New Delhi - 2005.
2. V.K. Bhalla, *Management of Financial Services,* Anmol Publications Pvt. Ltd., New Delhi - 2002

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## Lesson - 10

# MARKETING ASSISTANCE

## 10.0 Objectives:

After completion of this lesson, we would be able to understand:

* Marketing Concepts
* Scope of Marketing
* Functions of Physical Distribution
* Marketing Orientation
* Market Assessment
* Marketing Segmentation
* Marketing Mix
* Product Management
* Product Life Cycle.

## Structure:

## 10.1 Introduction:

Marketing is the basic reason for the existence of a business organisation. In the age of fast changes, marketing is the spring board of all business activities. It works as the guide for all business/non-business organisations - It is a powerful mechanism which alone can satisfy the needs and wants of consumers at the place and price they desire. The success of an enterprise depends largely on the effectiveness with which its marketing strategies are formulated and implemented. Marketing is said to be the eyes and ears of a business enterprise, because it keeps the enterprise in close contract with its, economic, political, social and technological environment and informs it of events can influence its activities as per requirements of the market. Marketing helps in having a good range of products in constant demand and suggests the scope for improving and developing new products to satisfy the changing customer needs. Customer is the King and Queen of the market. Customers decide what products suit their needs. Therefore, we can say marketing satisfies our needs by providing form utility, person utility, exchange utility, place utility and time utility.

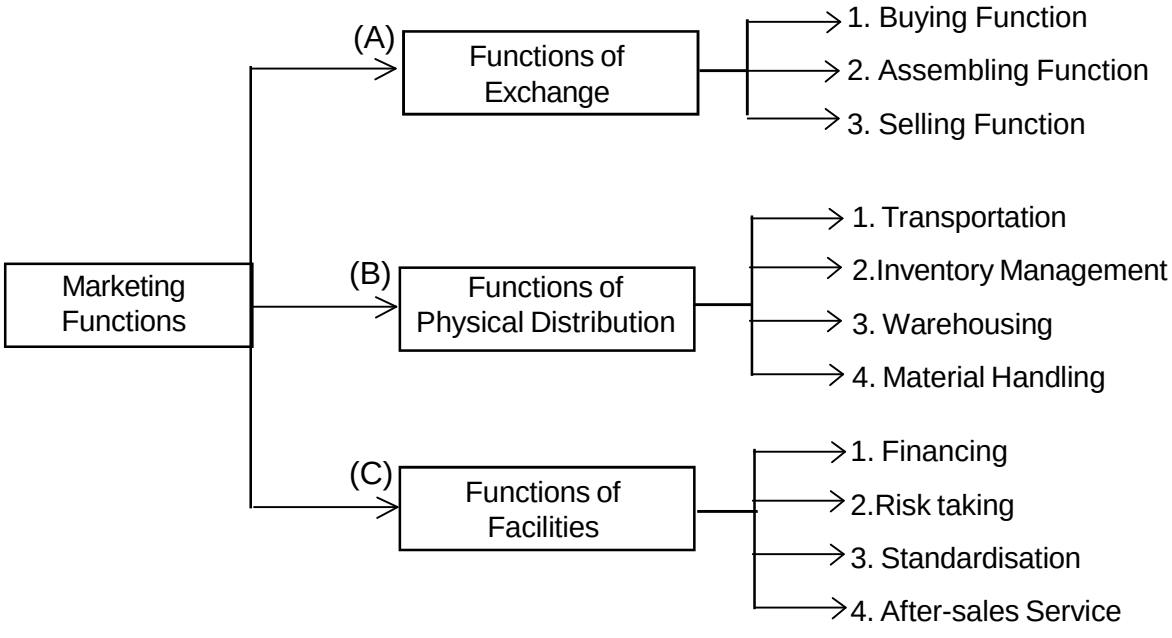
Marketing can be summed up as consisting of:

* sales in a planned way
* creation of customers
* creation of demand and satisfying etc.

## 10.2 Scope of Marketing:

The scope of marketing is very wide. It may be analysed in terms of performance of various functions. A number of functions are inherent in every marketing process and these functions are to be performed on the basis of various utilities:

**1. Marketing Functions**



### (A). Functions of Exchange:

**(i) Buying Function:** A manufacturer, whole-saler and retailer have to buy goods from various sources. Thus, functions of buying has to be performed at various levels.

**(ii) Assembling Function:** Assembling is different and separate from buying. In assembling goods are purchased from various sources and assembled/collected at one place to suit the requirements to the buyer.

**(iii) Selling Function:** Selling function is vital to the success of any firm. Its importance has been continuously increasing in all organisations due to the emergence of severe competition.

### (B). Functions Physical Distributions:

In this function transportation, inventory management, warehousing and material handling are included.

### (C). Functions of Facilities:

It includes financing, risk taking standardisation and after sales service.

## 10.3 Marketing Orientation:

The first tasks of an entrepreneur is to make correct decisions regarding the kind of goods or services to be produced which can be sold to the customers. Marketing orientation induces thinking about customers and their needs, and assists in creating an appropriate product or service and also in selling it.

## 10.4 Market Assessment:

The market is composed of a wide variety of customers with different backgrounds and spread over a wide geographical areas. As the first step an entrepreneur is required to know the potential demand of the products or services he wants to offer. It may also be necessary to understand the nature and the extent of competition in its marketing and the prevailing trade practices. Such efforts help assess the market. Depending upon several factors like the availability of resources, the scale of operation and the impact an profitability, one may decide the customer group, called the market segment, which is of interest to the enterprise.

The marketing assessment involves three major steps:

(a). Analysis of demand

(b). Understanding the competitive situation; and

(c). Trade Practices.

## 10.5 Market Segmentation:

The market consists of a large number of individuals having different characteristics. They differ in their education, employment income, status, preferences, likes, dislikes and opinions. Not all of them are the potential customers for a product.

Though market segmentation, groups of customers are identified sharing some common characteristics and are considered as the target group or segment for the product.

### Basics of Market Segmentation:

**(i) Geographical:** Village, Town, State Country, Region, Hill, Valley, Rural, Urban.

**(ii) Demographic :**

Age : Children, Youth, Adult, Old

Sex : Male, Female

Income : High, Middle, Low, Below Poverty Line

Occupation : Executives, Professionals, Farmers

Education : Primary, Secondary, Tertiary

**(iii) Psychographic:**

Attitude : Conservative, Liberal, Radical

Autonomy : Independent/Dependent.

Work Orientation: Hard working, Fun loving.

There can be many more basis for segmentation such as habit-smoker, non smoker, etc. The identified segment must be sufficiently different from the rest to justify calling it a segment. Segmentation is useful and cost effective since it helps selecting appropriate methods of selling, pricing, packing, and promoting the product/service.

## 10.6 Marketing Mix:

The term 'marketing mix' was introduced by **Prof. N.H. Borden** of the Harvard Business School of America. It describes combination of the four inputs which constitute the core of a company's marketing system - the product, the distribution system, the price structure and the promotional activities. The basic task of the entrepreneur is the successful management of the marketing mix. Success means that the customer is satisfied and that the organisation's resources are effectively deployed to that end.

Marketing mix is the set of controllable variables and their levels that the firm uses to influence its targets. McGarthy popularised a four-factor classification of these tools called the four Ps: Product, Price, Place, and Promotion.

$P_1$ = **Product :** What decisions relate to product or service range.

$P_2$ = **Price :** What price should be set for each product/service.

$P_3$ = **Place** : Identification and selection of channels for distribution and deciding what level of service are appropriate thus defining the logistics involved.

$P_4$ = **Promotion** : How to communicate the target market and persuade the people concerned to buy.

## 10.7 Product Management:

A product is anything that is offered to the market for sale at a price. It can be a physical product like typewriter or a service provided by a travel agent.

### (I). Types of Products:

**(A). Consumer Products:** Goods which are bought by individual households without requiring further processing i.e. soaps, television sets, toys, clothes and furniture are all consumer products.

**(B). Industrial Products:** These products are goods which are sold to other business firms, either for their own consumptions or for producing other goods.

**(C). Services:** There are many services like insurance, transportation, tourism, health care, education, entertainment, repairs etc. As district from the normal physical products, one important feature of services is their intangible nature. Some services like teaching have very high degree of intangibility while some other like health care have both tangible and intangible components.

### 10.7.1 Product Mix:

As discussed in pre pages product mix is the set of all the product line such as different varieties of soap, or more than one product line such as different varieties of soap and toothpaste.

Small firms usually make just one product or a couple of products in a product line. However, as it grows, it has to take decisions in regard to its product mix. The fact is affecting the choice of product mix of a company are:

(a) Profits and sales growth potential

(b) Stability in sales

(c) Better Customer Services

(d) Utilisation of available know-how and other strengths of the company

(e) Cost reduction

(f) Better capacity utilisation

### (III). Packaging Concept:

Packaging, over the years, has acquired a lot of promotional value for a product. Many products like cosmetics, playing cards and readymade garments are made attractive to the customers through force and elaborate packaging.

### (IV). Branding Concept:

The brand is a word, mark, symbol, or combination thereof used to identify the goods or services.

A brand name is that part of a brand which can be vocalised (e.g. Gillete, Sony, Bajaj, Hero Honda and TATA).

### (V). After Sales Service:

For many products, there is need for service after they are sold and delivered to the customer. In fact, for products like television sets, typewriters, computers, and automobiles, the availability of after-sales services is important criteria for deciding the purchase. Companies manufacturing such items spend large amount of money in making the services available to the customers.

### (VI). Product Pricing Concept:

The price of a product is the amount of money a consumer must pay to have it. Pricing decisions are extremely important as they greatly influence the profitability of a firm. Moreover, price is perhaps the most handy tool available to a firm to adopt its marketing strategy to changes in demand, costs and competitive situation.

## 10.8 Marketing Strategy for New Ventures:

Marketing Strategy is the set of programmes which are matched with the target market opportunities in order to achieve organisational objectives. Drawing up a marketing strategy essentially consists of these steps: Target Market Selection, setting marketing objectives and developing the marketing programme.

### 10.8.1 Target Market Selection:

A firm may choose to market its products to all users or to some subgroups. The strategic decisions that a firm has to make here are:

(a) Whether to sell to the entire product market en masse or concentrate on a portion of the market.

(b) Determining when an existing target market strategy needs to be modified.

(c) Deciding to stop serving a particular target market.

### 10.8.2 Brananding Strategies:

There are four strategies available to an entrepreneur when he decides to introduce any product in the market place. **Philip Kotler** neatly sumps up these strategies in the following grid.

**Product Category**

| | Existing | New |
|---|---|---|
| Existing | Line Extension | Brand Extension |
| New | Multibrand | New Brands |

Fig: 2 : Branding Strategies

**Line Extension:** When additional product items are introduced in the same product category with slight modification in terms of colour, size form, ingredient and flavour, it is line extension. Companies sometimes use the same brand name for the extended line.

Some of the examples are given below:

* Nirma detergent powder and detergent bar
* Amrutanjan and Amrutanjan Strong
* Rim - Super Power, Triple Power, Shakti, etc.

**Brand Extension:**

An existing brand name is used to launch a product in another category. For example, Ponds uses the same brand name for its shampoo, toilet soaps, talcum power and cold cream.

**Multi Brands:**

This involves introducing additional brands in the same category so that more market segments are covered. For example, the Titan range of watches covers the regular priced jewellary watch segment and the Raga range covers the women's watch segment. The tricky decision here is weed out weaker brands so that the promotion effort is not diluted by the presence of too many brands.

**New Brands:**

When a company launches products in a new category, it might have to do so under a different brand name. But promoting a new brand name is very expensive and involves as much though and complexity as much as starting a new business venture.

## 10.9 Developing the Sales Promotion Schemes:

After deciding the objectives and tools of sales promotion, the entrepreneur has to make a few more decisions to ensure effective results. The following area highlight a few such aspects:

**(1). Size of Incentive:** The entrepreneur has to determine how much incentive should be offered. A certain minimum incentive is necessary if the promotion is to succeed.

**(2). Condition for participation:** Incentive should not be distributed to all the prospective buyers indiscriminately.

**(3). Distribution Pattern:** The entrepreneur should also decide the mode and media of distribution of incentives.

**(4). Duration of Sales Promotion:** If the sales promotion period is too short, many prospects will not be able to take advantage, since they may not be repurchasing at that time. If the promotion runs too long, the scheme will loose some of its effects.

**(5). Pre-Testing:** Sales promotion schemes should be pre-tested if possible. The purpose is to determine whether the scheme is appropriate or not.

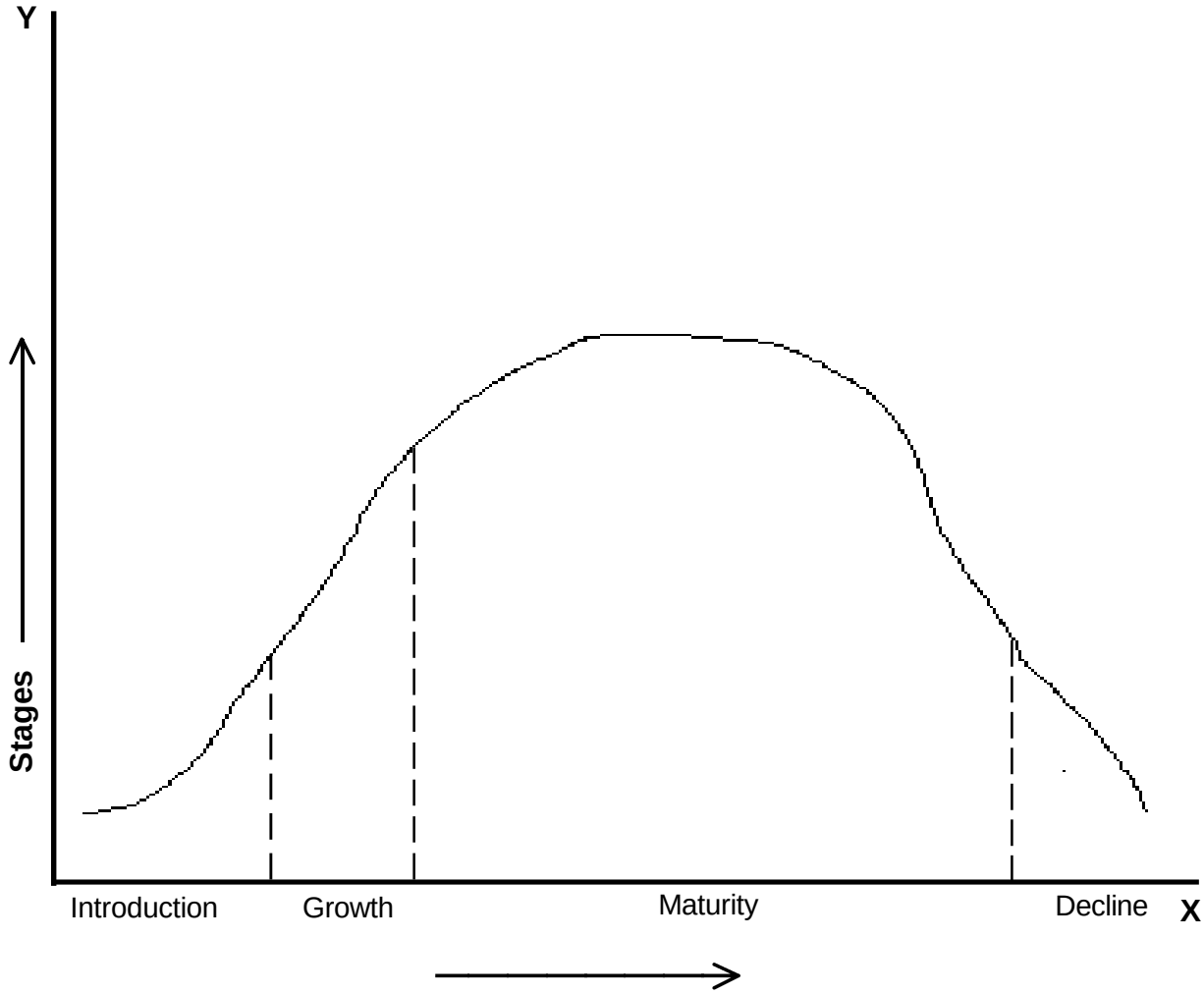



**Figure : 10.3**

**6. Implementing the Promotion Schemes:** Companies should establish implementation plans for each promotion covering lead time and sell off time.

## 10.10 Product Life Cycle:

A product passes through four stages in its life namely, introduction, growth, maturity and decline with the product passing through these stages the entrepreneur faces varying challengers, opportunities and problems. Profit rise and fall at different stages of the product life cycle. Most product life cycle curves are bell shaped and are divided into four stages.

### 1st Stage: Introduction:

When the new product is introduced it starts with a period of slow growth profits are usually non existant as heavy expenses are incurred for introducing the product. The main objectives during this stage are to inform the customers about the product, to induce trial of the product and achieve adequate distribution of the product.

### 2nd Stage: Growth :

The sales as well as the profits increase rapidly as the product is accepted in the market. This is the most attractive stage for competitors who enter the market encouraged by the success of the pioneers in the product category.

### 3rd Stage: Maturity:

This is a period where the sales growth slows down. The product has been accepted by most of the potential buyers. Profits stabilise, may be at a level lower than their previous peak levels. The competition has increased. At this stage, companies focus on somehow increasing the sales of their product or decide to abandon it to make way for more profitable products.

### 4th Stage: Decline:

The sales show a downward drift profits erode and substitutes have appeared in the market. A declining product has to be identified at the right time by using cost and profit information. A declining product would have lost its distinctive position because of too many imitative products available in the market. A technology change could also render the product obsolete and push it into decline.

At this stage distribution strategy gets focused on removing the product from unprofitable outlets and concentrating on a select few outlets. Promotional support becomes almost nil as sales shrink too low. Prices are pushed down in a bid to clear stocks in the market.

Products require different marketing, financial manufacturing, purchasing strategies at each stage of their product life. Entrepreneur has to choose a suitable marketing strategy depending upon the products position in its life cycle.

## 10.11 Summary:

Marketing Management looks at the environment, while entrepreneur scans the environment in dynamic fashion to look for potential opportunities as well as threats. Typically marketing management takes a snapshot of the environment. Entrepreneur looks at the environment through a movie camera and scans dynamically.

The decision process adopted by strategic marketing is more bottom-up with participation by many individuals. Marketing allows for greater participation from people who are in direct contract with the customers. Marketing strategy is the set of programmes which are matched with the target opportunities in order to achieve organisational objectives. One of the important responsibilities of an entrepreneur is to develop and implement appropriate market strategy formulation.

## 10.12 Self-Assessment Questions:

1. Define Marketing Assistance and explain the marketing concepts.

2. What is market segmentation? Why should a company want to segment its markets?

3. Define marketing mix? Explain 4 P's of marketing mix.

4. List the stages of the product life cycle and examine the product diffusion process.

5. Explain the meaning of price and its role in the marketing mix.

## 10.13 Reference Books:

1. Satish Taneja and S.L. Gupta; *Entrepreneur Development,* New Venture Creation, Galgotia Publishing Company, New Delhi - 2004.

2. Dr. C.B. Gupta and Dr. N.P. Srinivasan; *Entrepreneurship Development in India,* Sultan Chand & Sons, New Delhi - 2002.

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**Lesson - 11**

# SIZE AND LOCATION OF ENTERPRISE

## 11.0 Objectives:

After going through this lesson, you should be able to understand:

* size and location of Enterprise
* Layout Planning
* Various types of Manufacturing Processes
* Selecting the Appropriate Process
* Purchase and Inventory Control
* Quality Control

## Structure:



## 11.1 Introduction:

In any business enterprise, products are produced or services are provided. For this, certain operations are carried out through a combination of raw material, processing or assemblying the various components, using the services of workers, machines, tools and power. In any enterprise the items are produced or service is provided with a minimum waste of material and consumption of time and effort while assuring quality.

An operation may be defined as "the process of changing inputs into outputs thereby adding value to some entity". Value is added to the entity by one or more of the following ways: i.e.,

(i). Altering the form of inputs e.g., converting crude petroleum to petrol or converting raw food into a dish.

(ii). Transporting the materials to where they are required i.e., taking out coal from mines and moving it to power stations.

While establishing the unit, an entrepreneur is required to pay attention to various aspects like size, location and layout as these effect the efficiency of the operations. Such factors should preferably be considered by the entrepreneur at the project planning stage and need to be taken care of at the project implementation stage.

## 11.2 Size and Location of Enterprise:

**Size:** The size of the unit refers to the production or installed capacity. The size is important as it determines the use of technology and in most cases the layout of the production process. The size of the plant should be fixed with due consideration to economy of scale. Size also encompass factors like land, building etc. Size of land should be such to take care of storage of raw materials, finished goods as well as construction of factory for processing/manufacturing. Its size should be such so as to take care of present and future requirements of expansion this would also apply to the building which may be constructed or rented.

**Location:** Proper location of an enterprise is crucial for its success. Raw material, skilled labour, and market are the factors that help production in a manufacturing unit.

**Location of Manufacturing Unit** : Location of manufacturing establishments would depend upon their type, which could be:

* Resource based
* Demand based
* Skill based or
* Foot loose

For resource based units like agro-industry, nearness to the source of raw material is a definite advantage. Thus, a sugar factory should be located near sugarcane growing area otherwise cost of transporting for raw material will be high. Similarly, for demand based industries location near the market is advisable and for skill based industries like gold embroidery or information technology, locate the units at a place where such skilled workers are available. It is for this reasons, entrepreneurs and corporates from different parts of the world are setting up their software and processing units in India.

A unit to be located in a residential or commercial area has to take note of local bye laws and should not be a nuisance to the neighbourhood in terms of pollution (including sound) work force, transport bottle neck etc.

## 11.3 Location Strategy:

It is difficult to set down rules, whereby, the problem of location can be programmed but there

are a number of factors which should be considered. It is worth differentiating between the problems of location and site the location is general area, and the site is the place choosen within the location. The decision on selecting, thus, probably proceeds in two stages: in the first, the general area is choosen; and then a detailed survey of that area is carried out to find possible sites. The final decision is made by taking into account more detailed requirements.

**(1). Proximity to Market:** Organisations may choose to locate facilities close to their market, not merely to minimise transportation costs, but to provide a better service.

**(2). Integration with other parts of the Organisation:** If the new plant or facility is one of a number owned or operated by a single organisation or group, it should be so situated such that its work can be integrated with that of the associated units.

**(3). Availability of Labour and Skills:** Labour may be more readily available in some places than in others. Certain geographical areas have traditional skills but it is very rare that a location can be found which has appropriately skilled and unskilled labour, both readily available, in the desired proportions or quantities.

**(4). Availability of Amenities:** A location which provides good external amenities - housing, shops, Community Services, Communication Systems - is often more attractive than one which is more remote.

**(5). Availability of Transport:** It is important that good transport facilities are readily available. There are five basic modes of physical transportation; air, road, rail, water and pipeline. Goods intended largely for export may prefer a location near a seaport or a large airport, but the choice of transport method and therefore location, will clearly depend on relative costs, convenience and suitability. Mail-order businesses, delivery services, and operations like Disney World tend to make location decisions based very much on availability to a good transportation network.

**(6). Availability of inputs:** Good transport facilities will enable goods and services to be obtained and delivered readily, but a location near main suppliers will help to reduce cost and permit staff to meet suppliers easily to discuss quality, technical or delivery problems.

**(7). Availability of Services:** There are six main services which need to be considered:

| | |
|---|---|
| (a) Gas; | (b) Electricity |
| (c) Water | (d) Drainage |
| (e) Disposal of Waste | (f) Communications |

**(8). Suitability of Land and Climate:** The geology of the area needs to be considered, together with the climatic conditions (humidity, temperature and atmosphere). Modern building technologies are such that almost all disadvantages of terrain and climate can be overcome but the cost of so doing may be high and a different locality could avoid these initial costs.

**(9). Regional Regulations:** It is important to check at any early stage that the proposed location does not infringe any local regulations. A study must be made of the appropriate bye-laws and of any special regulations concerning the disposal of effluents, etc.

**(10). Room for Expansion:** It is most unwise to build to the limit of any site unless the long-range forecast indicates very definitely that the initial building will never be required to increase in size. This is most unlikely that circumstance and adequate rooms for genuine expansion should be allowed.

**(11). Site Cost:** As a first charge, the site cote is important, although it is necessary to prevent immediate benefit from Jeopardizing long term plans.

**(12). Safety Requirements:** Some production units may present, or may be believed to present, potential dangers to the surrounding neighbourhood; for example, nuclear power stations, chemical and explosives factories are often considered danger. Location of such plants in remote areas may be desirable.

**(13). Political, Cultural and Economic Situation:** The political situation in potential locations should be considered. Even if other considerations demand a particular site, knowledge of the political, cultural and local prejudice (e.g. restriction of women or foreign workers) or economic difficulties can assist in taking decisions.

**(14). Special grants, regional taxes and import/export barriers:** Certain government and local authorities often offer special grants, low interest loans, low rental or taxes and other inducements in the hope of attracting certain industries to particular locations.

## 11.4 Layout:

Layout involves determining the space requirement for the facilities and arranging them in a manner to ensure steady flow of operations with minimum over all cost. In other words, a lay-out is a floor plan for arranging the desired facilities, machinery, equipment in an optimum locations so as to permit the quickest flow of materials and manpower at the lowest cost and with the least amount of process handling from receipt of raw material to shipment of finished products.

Layout planning involves layout of different machines, work stations etc, In the shop floor and patients beds, drug store, doctors and nurses seats and other facilities in a hospital ward. Irrespective of the level at which the layout is being designed the following aspects are kept in view:

* Maximum use of the available space.
* Compatibility with the production technology and product mix.
* Minimum movement of materials as well as men.
* Provision of proper space for maintenance.
* Arrangement of proper intransit storage and stacking space.
* Promotes effective supervision
* Proper lighting and ventilation
* Provision of maximum flexibility
* Safety of operators and other staff
* Minimum handling of materials

* Provision for future expansion

* Security against fire, theft, detorioration etc.

## 11.5 Manufacturing Process:

Manufacturing or transformation process converts inputs into outputs and adds value to the product. Selection of the manufacturing process is also a strategic decision as changes in the same are costly. Therefore, the manufacturing process should meet the twin objectives of (i) meeting the specifications of final product, and (ii) being cost effective.

### 11.5.1 Types of Manufacturing Process:

The manufacturing process have been classified into four types:

**(1). Jobbing Production:** Herein one or few units of the produced as per the requirement and specifications of the customer. Production is to meet the delivery schedule and costs as are fixed prior to the contract. When the job is complex and large it is called project production.

**(2). Batch Production:** Herein limited quantities of each of the different types of products are manufactured on the same set of machines. Different products are produced separately one after the another.

**(3). Mass Flow Production:** Herein a production run is conducted on a set of machines arranged according to the sequence of operation. Several number of same products are manufactured at a time and are stocked fore sale.

**(4). Process Production:** Herein the production run is conducted for an indefinite period.

## 11.6 Inventory Control:

A business unit requires to keep inventories of raw materials, good in progress (semi-finished goods), and finished goods, both in stock and in transit. It has many advantages: (1) Materials are readily available when required for production/use, (2) Quantity discounts results in large orders; (3) The finished goods inventory allows a firm to meet the requirements of the customers promptly; (4) The demand may fluctuate overtime and the finished goods inventory helps in reducing the impact of such fluctuations on the process of production.

However, “holding the inventory” has certain costs, called ‘carrying costs’. Since, holding inventory has advantages and carrying costs, a balance has to be reached.

## 11.7 Quality Control:

Quality refers to the intended use and the price of a product. A technically excellent product may be prohibitively costly, and there is no point in making a product that the customers cannot afford to buy. Quality, thus, is a relative term and must be viewed as such.

### Concept of Quality:

Even though we all talk of quality, it is not easily defined. One of the accepted definitions of quality is fit for use. An equally good definition is conformance to requirements. Note that in both the definitions quality is defined relative to use, rather than as a general characteristic that may be intangible. But this simple, yet practical definition, if a product or service lives up to expectations, it is

of high quality. On the other hand, extra fine finish or using materials that are far stronger than required does not add quality to an item unless it somehow causes the item conform to its requirements better.

### 11.7.1 Cost of Quality:

The term cost of quality is often a misnomer. Cost of quality is a measure of the cost to the firm for a lack of quality. It is very difficult to measure and often cannot be found in account books. One has to carefully calculate it, as most of the cost elements are hidden.

Quality costs are distributed throughout the organisation. Most organisations include only the cost of quality control departments whereas the cost of inspection, and measurement carried out in production departments are often ignored. More importantly the cost of bad workmanship, wastages, rework, etc; are often not included in quality costs. Careful examination of quality costs should account for prevention, assessment, control costs and also the costs due to lack of control.

"Quality is free, but it is not gift". This statement sumpup the opinion that effective, permanent quality improvement though difficult to achieve, yet it pays for itself in increased productivity.

When a company decides to manufacture goods or provide service of a particular quality level, it must ensure that this level of quality is maintained consistently. In technical terms, the variations in the quality of products/services must be kept within the specified tolerance limits.

### 11.7.2 "Quality Management":

Quality assessment is an investigation of the level of quality being achieved. Quality Control on the other hand, begins with assessment, and includes action taken to eliminate unacceptable quality. The typical quality control programme is based on periodic inspection, followed by feedback of the results and changes or adjustments whenever necessary. It includes:

(i) Prevention of the occurrence of a fault.

(ii) Delection of it as soon as it occurs, and

(iii) Rectifying it at the earliest.

Quality assurance includes quality control, but it also refers to emphasis on quality in the design of products, processes and jobs and in personnel selection and training. Total quality control refers to the managerial commitment to quality so as to include the quality aspect in every functional area of work, production, marketing, finance and personnel. It also included behavioural science based techniques like quality circles. Zero defect programmes. Naturally, the management of quality is an extensive area of study.

Quality assurance as an idea is quite old, but a systematic inclusion of quality assurance in organisations is a twentieth century phenomenon. Statistical methods of quality control were first proposed by **Shewart** in 1924, in the United States. Intensive training courses in statistical control popularised by the American and Japanese industry contributed to much of the success of quality control programme.

Recently the concept of quality circles has been a run away success in Japanese industries. A quality circle is a group of employees whose assignment is to identify problems formulate solutions, and present their results to management with suggestions for implementation. It is getting increasingly popular with employees and management in India also.

### 11.7.3 Quality Control Steps:

* Prepare specifications and quality standards
* Ensure quality of inputs - Raw materials, tools, jigs and fixtures etc.
* Ensure quality during operations
* Pre shipment inspection
* Eliminate cause of rejection through methods study
* Apply statistical quality control
* Create quality consciousness in the enterprise.

For attaining quality standard, there must be clearly stated standards with reference to raw materials, components, workmanship, packaging, performance and all other benefits customers are expecting from the goods and services. Quality testing and measuring equipment, of the required specification should be considered as essential components of the unit.

## 11.8 Summary:

Operation Management is logically the management of the use of equipment and other resources of production which essentially include the element of planning, organising and controlling of various components of production function.

Operation planning is the system for specifying the production procedure with a view to obtain the desired output in a given time at optimum cost inconformity with specified standards of quality.

Plant layout is the disposition of the various facilities and services of the plant within the area of the site selected. The work at plant layout begin with the location of the work tables.

Quality is an important aspect of production system and it must ensure that services and products produces by the company conform to the declared quality standards at minimum cost. A total quality assurance system includes such aspects as setting standards quality, inspection of purchased and sub contracted parts, control of quality during manufacturing and inspection of finished products including performance, testing etc;

## 11.9 Technical Terms:

Quality : Calibre, Class, Condition, Excellence, Grade, Rank, Sort Standard, Status, Value or Worth.

Misnomer : The wrong use of a name or term or an inaccurate name.

Quality Control : A system of maintaining standards in manufactured products by testing a sample to see if it meets the required standard.

## 11.10 Self-Assessment Questions:

1. What factors decide the location of an industrial unit.

2. What is quality control? Explain the various Quality Control tools/methods that can be used for small enterprises.

3. How would you go about ensuring quality of product or service?

4. What factors effect the choice of manufacturing process.

5. If you were to set up a unit, how would you go about selecting the location for the same.

## 11.11 Reference Books:

1. C.B. Gupta & N.P. Sreenivasan, *Entrepreneurship Development in India,* Sultan Chand & Sons, New Delhi, 2002.

2. Satish Taneja and S.L. Gupta, *Entrepreneur Development,* New Venture Creation. Galgotia Publishing Company, New Delhi, 2001.

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**Lesson - 12**

# PROJECT FINANCING

## 12.0 Objectives:

After completion of this lesson, we should be able to understand:

* meaning of project financing, concept
* capital - capitalisation - evils
* capital structure

## Structure:



## 12.1 Introduction:

Finance is one of the basic requirements of a project. The entrepreneur needs capital to start with and he needs financial assistance at every stage of the project. Project finance is both for short term and long term. The source from which the entrepreneurs can meet their financial needs for their projects are broadly grouped as (a) internal source and (b) external source. Besides, the entrepreneur raises his finance by availing of available subsidies, state aid to industries, etc. Project finance, therefore, is very crucial to the success of a project. In this lesson, the various facets of project financing are discussed.

Finance is one of the constant problems and if small-scale industries are to develop in the way the Government Policy hopes, they must have adequate credit. Credit is available on the basis

of the credit worthiness of the entrepreneur. In regard to capital structure and working capital management, there are many differences between large, medium and small-scale industries.

Finance is the life-blood of any business. Its management is an art and merits special attention. The financial function of management is to:

(a) ensure a fair return on investment;

(b) generate and buildup surpluses and reserves for growth and expansion.

(c) plan, direct and control the utilisation of finances so as to ensure the maximum efficiency of operations and build a proper relationship with suppliers, financiers, workers and members; and

(d) Co-ordinate the operations of the various departments through appropriate measures to ensure discipline in the use of financial resources.

## 12.2 Capital:

The term "Capital" refers to total investment of money, tangible assets like buildings, etc., and intangible assets like goodwill. It is, in a way, the aggregate wealth of a unit or a company. The "net capital" refers to the excess of total assets over total liabilities.

### 12.2.1 Capitalisation:

Capitalisation is the sum-total-of all long-term securities issued by a company and the surpluses not meant for distribution; it includes only term loans and retained profits. If a company raises more capital than is warranted by the figure of capitalisation or its earning power, it is said to be over-capitalised, but if its capital is lower than its earning power, it is said to be under-capitalised.

### 12.2.2 Evils of Over Capitalisation:

As a result of over-capitalisation,

(1) There is a considerable reduction in the rate of dividend on equity shares;

(2) The market value of shares declines and investors lose confidence in the company;

(3) The company resorts to window dressing; and

(4) There is loss of goodwill.

From the point of view of society, over-capitalisation,

(1) Is an indication of reduced efficiency;

(2) Results in a misappropriation of society's resources.

(3) Leads to a cut in the wages of workers with a view to raising profits; and

(4) Makes it difficult for company to withstand competition.

### 12.2.3 Under-Capitalisation:

A company is under-capitalised when its capital is lower than is warranted by its earning capacity. The management should capitalise its earnings by issuing fully paid bonus shares.

Keeping the company fairly capitalised is a continuing process. Flexibility in financial planing is, therefore, quite essential if the capital structure is to be adjusted to the varying needs of a company.

## 12.3 Capital Structure:

The capital structure of a company involves a decision regarding the ratio of ownership capital to credit capital, between short-term and long term capital, between short-term and long term capital, and the ratio of among different sources of finance for capital, which includes loans, bonds, share issues and reserves. The various components of the capital structure of a company are indicated in Fig. 12.1.

The maintenance of proper relations between the different types of securities is known as "Capital gearing". The following factors generally govern the capital gearing of a company:

(a) Trading in equity;

(b) Retaining control of a company;

(c) Nature of enterprise;

(d) Elasticity of the financial plan;

(e) Legal requirements;

(f) Market sentiment; and

(g) Requirements of investors.

The size and pattern of a company determine its capital structure. The basic pattern of any capital structure may be broadly classified as follows:

(i) Equity shares, i.e. one type of shares

(ii) Equity shares and preference shares, i.e., two-tier stock.

(iii) Equity shares, preference shares and debentures, three-tier stock.

The financial pattern of large-scale and medium - scale industries is quite different from that of small-scale industries. With a view to getting a proper perspective on the capital structure and working capital management of a small scale industry, let us first briefly discuss the financial structure of large-scale industries.

## 12.4 Finance for Large-Scale Industries (Long term):

As already mentioned, large-scale industries require long-term loans or funds to meet their fixed or block capital expenses - on the purchase of a factory site, the construction of the factory building, the purchase of machinery and equipments, and so on. Short term loans or funds are needed to meet working expenses. Payment for raw materials, wages, minor maintenance charges, and so on.

### 12.4.1 Shares and Debentures:

Large and well-known industries generally raise a major portion of their funds to meet the demands of fixed block capital by selling shares of different types, namely, equity or ordinary shares, cumulative and non-cumulative preference shares, and so on. The tendency in recent times is to issue shares of Rs.10, Rs.50 and Rs.100 to enable persons in the middle income group to subscribe to the share capital. Because of the plentiful supply of money with the public, well known industrial concerns find it quite easy to raise funds by selling equity shares, which are often oversubscribed, restrictions on the rates of divided had, for some time, depressed the share market. Most of these restrictions, however, have now been withdrawn. Another way of raising funds to meet the needs of block capital is to sell debentures to, and borrow money from the public.

## 12.5 Source of Short-term Finance:

Short-term finance is obtained for a period upto one year. These are required to meet the day to day business requirements. In other words, short term finance is obtained to meet the working capital requirements of the enterprise.

The sources of short-term finance could be

1. Loans from Commercial Banks
2. Public Deposits
3. Trade Credit
4. Factoring
5. Discounting Bills of Exchange
6. Bank overdraft and cash credit
7. Advances from customers
8. Accrual Accounts

## 12.6 Venture Capital:

Venture capital is a form financing especially designed for funding high technology, high risk and perceived high reward projects. While a conventional financier seeks to fund projects with proven technologies and already established markets, a venture capitalist provides funds to the entrepreneurs pursuring new and hitherto unexplored avenues and ideas. Thus, venture capital helps the entrepreneur translate their new idea into commercial production. It especially helps in financing of high technology projects and helps translate research and development into production.

## 12.7 Lease Financing:

Lease financing is the easiest way of financing capital expenditure without going through the time-consuming process of obtaining term-loan assistance from financial institutions and banks.

In any typical leasing transaction, there are three parties involved:

* the leasing company (lessor) which finances the equipment;
* the manufacture or seller from whom the lessor purchases the equipment; and
* the party that requires the equipment (lesee)

The equipment is purchased by the lessor from the manufacturer or seller and leased to the lessee. The lessee pays the lessor the predetermined rent over a specified period which usually extends between three to five years. The rent paid by the lessee represents the payment towards cost of equipment and interest thereon.

## 12.8 Export Finance:

The term ‘export finance refers to credit facilities and techniques of payments at the pre-shipment and post-shipment stages. Export finance, whether short-term or medium term, is

provided exclusively by the Indian and Foreign Commercial Banks which are the members of the Foreign Exchange Dealer's Association. The Reserve Bank of India and the Industrial Development Bank of India provide refinance facilities to the commercial banks. Export-Import Bank of India (commonly known as Exim Bank) also extends finance to exporters and to overseas joint venture and construction projects abroad.

## 12.9 Summary:

More finance is needed for projects became the industrial base is getting bigger and bigger. More importantly, the strees will have to be placed on prudent and efficient finance management in the coming decades. At the same time strengthen the capital market and give fillup to savings and investment in the country as well open her door to foreign capital to enable a larger inflow of external funds for faster economic development in the country.

## 12.10 Self-Assessment Questions:

1. Appreciate the need for finance in a business enterprise. What are the various sources available to a small-scale enterprise to raise funds.

2. Define capital structure. What factors do determine the optimum capital structure? Explain.

3. Discuss the various sources used for raising term-loans for an enterprise.

4. Distinguish between ownership capital and borrowed capital. What considerations are to be taken care of while determining debt-equity ratio?

5. Write notes on the following:

   (a) Over-Capitalisation

   (b) Under-Capitalisation

   (c) Venture Capital

   (d) Lease Financing

   (e) Export Finance

## 12.11 Reference Books:

1. Satish Taneja & S.L. Gupta; *Entrepreneur Development,* New Venture Creation, Galgotia Publishing Company - New Delhi, 2001.

2. S.S. Khanka; *Entrepreneurial Development;* S. Chand & Company Ltd., New Delhi, 1999.

3. Vasanth Desai, *Dynamics of Entrepreneurial Development and Management,* Himalaya Publishing House.

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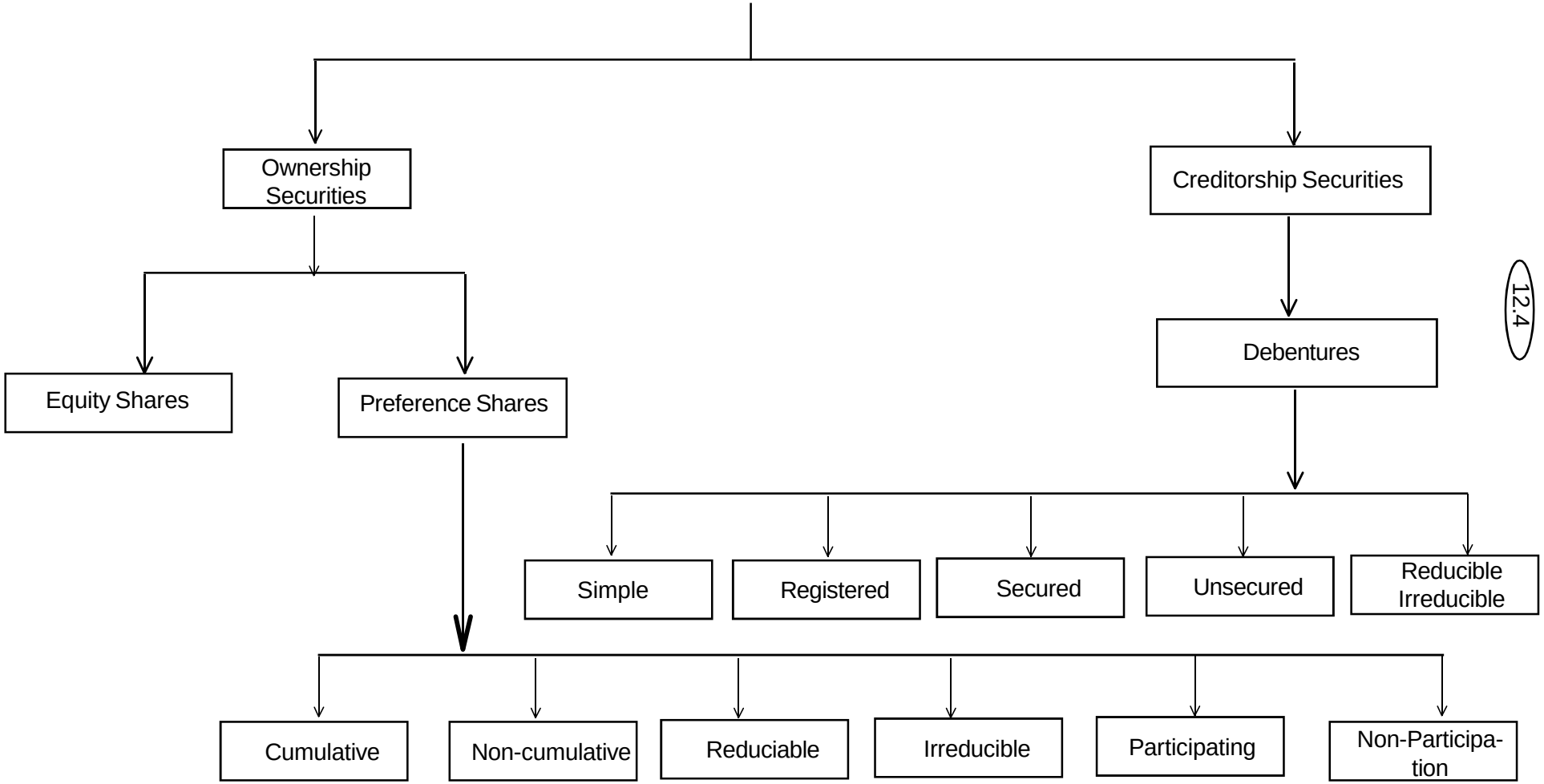
**Fig 12.1 : CAPITAL STRUCTURE OF A COMPANY CAPITAL**



**Lesson - 13**

# TAX CONCESSIONS IN BACKWARD AREAS

## 13.0 Objectives:

After completion of this lesson, you should be able to understand:

* appreciate the need for tax benefits to small-scale industries.
* need for Tax Benefits
* tax holiday
* tax concessions to small scale industries in backward areas
* various tax benefits

## Structure:



## 13.1 Introduction:

Small-scale industries are characterised by their small and shy resources/capital. These make them sensitive. In fact, small business is such a sensitive field where Murphy's Law (if anything can go wrong, it will) seems to operate without fail. The first thousand days seem to be a critical in small business as in new administration. The former needs suport and the letter indoctrination for survival. In the beginning, small industries have to incur more expenses, but the

returns are either nil or nominal. Therefore, they need to be provided support and assistance to tide over the crucial initial stage to enable them to survive. Hence, the government has come forward with various benefits to offer to small-scale industries in the country. One way to support the development of small-scale industries by the government is to provide them tax benefits. The government either exempts them from tax or provides them concession in tax liability. This helps small industries accumulate capital, on the one hand, and plough back profits in business, on the other. The various tax benefits available to small-scale industries are now enumerated and discussed in this lesson.

## 13.2 Tax Holiday:

Under Section 8 oj of the Income Tax Act 1961, new industrial undertakings, including small-scale industries, are ememted from the payment of income-tax on their profits subjects to a maximum of 6 percent per annum of their capital employed. This exemption in tax is allowed for a period of five years from the commencement of production. A small scale industry has to satisfy the following two conditions to avail of this tax exemption facility.

(i) The unit should not have been formed by the splitting or reconstitution on an existing unit.

(ii) The unit should employ 10 or more workers in a manufacturing process with power or at-least 20 workers without power.

## 13.3 Depreciation:

Under Section 32 of the Income Tax, 1961, a small scale industry is entitled to a deduction on depreciation account on block of assets, at the prescribed rate. In the case of small scale industry, deduction from the actual cost of plant and machinery is allowed subject to a maximum of Rs.20 lacs. The amount of depreciation is calculated on the diminishing balance method. In case of an asset acquired before the accounting period, depreciation is calculated on its written down value. For plant and machinery that are used in manufacturing in double or triple shift, an additional allowance called “Extra Shift Allowance” is available.

A small-scale industry should satisfy the following conditions before it becomes eligible for deduction in depreciation.

(i) The assets must be owned by the assessee.

(ii) The assets must actually be used for the purpose of the assessee’s business or profession.

(iii) Depreciation allowance or deduction is allowed only on fixed assets, i.e. building, machinery, plant and furniture.

(iv) All the prescribed particulars must be furnished to the Income-Tax officer as required under section 34(1) of Income-Tax Act, 1961.

## 13.4 Rehabilitation Allowance:

A Rehabilitation Allowance is granted to small scale industries under Section 33-B of the Income Tax Act, 1961, whose business is discontinued on account of following reasons:

(i) Floods, Typhoon, hurricane, cyclone, earth quake, or other natural upheavels;

(ii) Riot or civil disturbance.

(iii) Accidental fire or explosion; and

(iv) Action by an enemy or action taken in combating an enemy.

The rehabilitation allowance should be used for business purposes within three years of units re-establishment, reconstruction or revival. The rehabilitation allowance is allowed to the unit equivalent of 60 percent of the account of the deduction allowable to the unit.

## 13.5 Investment Allowance:

The investment allowance was introduced way back in 1976 to replace the initial depreciation allowance. The investment allowance under Sec. 31A of the Income Tax Act, 1961, is allowed at the rate of 25 percent of the cost of acquisition of new plant or machinery installed.

Although the investment allowance has been made available for the articles or things except certain items of low priority, Yet, as per the Eleventh Schedule to the Income Tax Act, 1961, a special dispensation has been provided for the plant and machinery installed in small scale industries. In comparison with other industries, small-scale industries are at an advantage in claiming a deduction of investment allowance.

A small-scale industry can avail of investment allowance provided it has put to use machinery or plant either in the year of installation or in the immediate following year failing which the benefit will be forfeited.

## 13.6 Expenditure on Scientific Research:

Under Section 35 of the Income Tax Act 1961, the following deductions in respect of expenditure on scientific research are followed:

(i) Any revenue expenditure incurred on scientific research related to the business of the assessee in the previous year.

(ii) Any sum paid to a scientific research association or a university, college, institution or to a public company which has as its object, the undertaking of a scientific research.

(iii) Any capital expenditure incurred on scientific research related to the business of the assessee subject to the provision of Section 35(2) of the Income Tax Act, 1961.

In case of any unabsorbed capital expenditure incurred on scientific research, the provision of the Income Tax Act allow to carry it forward for adjustment against the profits earned by the business in the subsequent years for an indefinite time period.

## 13.7 Amortisation of Certain Preliminary Expenses:

The Indian Companies and resident persons, under Section 35D of the Income Tax Act, 1961, are allowed to write off the preliminary and development expenses incurred by them in connection with the settingup of a new industrial unit or expansion of an existing industrial unit. The example of preliminary expenses are:

(i) Expenses incurred in connection with the preparation of feasibility report necessary for their business;

(ii) Engineering expenses related to the business; and

(iii) Legal charges, if any, for drafting agreements.

## 13.8 Tax Concessions to Small-Scale Industries in Rural Areas:

The Finance (No.2) Act of 1977 inserted a new section 80-HHA in the Income Tax Act, 1961. The Tax-Payers, under this Section 80 HHA, are entitled to a deduction of 20 percent of the profits and gains derived by running small-scale industries in rural areas. The deduction is allowed for a period of 10 years from the year of commencement of manufacturing activity after 30th September, 1977. For this purpose the expression rural area means any area as defined under the explanation to Section 35 CC(I) of the Income Tax Act, 1961. However, this tax deduction benefit it not allowed to the small-scale units engaged in mining activity.

The small-scale industry can avail of this tax deduction only after fulfilling the following conditions:

(i) The small-scale unit is not formed by splitting or reconstruction of a business already in existence.

(ii) It is not formed by the transfer to a new business of machinery or plant previously used for any purpose.

(iii) The accounts of the unit are audited by a chartered accountant.

(iv) It employs 10 or more workers in manufacturing process carried on with the aid of power or 20 or more workers in a manufacturing process carried on without the aid of power.

(v) The unit does not claim a simultaneous deduction under Section 80-HH of the Income Tax Act, 1961.

## 13.9 Tax Concessions to Small-Scale Industries in Backward Areas:

The Planning Commission of India in 1970-71, declared 247 districts out of 435 districts as backward areas with a view to provide them special incentives and concessions to establish industries in these backward areas. The newly established small-scale industries in these backward areas specified in the Eight Schedule to the Income Tax Act, 1991 are entitled to a deduction of 20 percent of their profits and gains from their gross total income. This deduction is allowed for a period of 10 years beginning with the year of commencement of manufacture or production. However, if a small scale industry has already been established in a non-backward area and later shifts to a backward area, the unit will be allowed this deduction on the profits earned from the undertaking after shifting in the backward area for a period of ten years. A small-scale industry established in backward area but engaged in mining activity is not entitled to such deduction benefit. The unit has to satisfy the following conditions to be eligible to avail of this tax benefit:

(i) It is established on or after 31st December, 1970.

(ii) It employs atleast 10 workers in a manufacturing process carried on with the aid of power or atleast 20 workers in a manufacturing process carried on without the aid of power.

## 13.10 Expenditure on Acquisition of Patents and Copyright:

Under Section 35-A of the Income Tax Act, 1961, any expenditure of a capital nature incurred in acquiring a patent and copyright by a small-scale industry is deductible from its income. But the expenditure should be incurred after 28th February 1966. The expenditure can be deducted in 14 equal installments beginning with the previous year in which the expenditure was incurred in acquiring patents and copyrights for the units.

## 13.11 Profits from Business of Publications of Books:

Under Section 80-1A of the Income Tax Act, 1961 which has replaced Section 80-I w.e.f. the assessment year 1991-92, 20 percent of the profits earned by a small-scale entrepreneurs from the business of publication of books is deductible from its gross total income. The deduction benefit is available for a total period of five years beginning with the assessment year 1992-93.

## 13.12 MODVAT and Small-Scale Industries:

The vexatious question of the taxation of inputs and its cascading effect ultimately on the value of the final product was a matter of much debate and concern for quite sometime. The solution to the question was ultimately envisaged in extending the present ongoing system of proforma credit to all excisable commodities barring a few ones. This new scheme is known as Modified Value Added Tax (MODVAT).

The MODVAT scheme intends to greatly and gradually expand its horizons so as to set-off excise and other countervailing duties paid on various inputs of final products. This aims at coming closer to a generalised set-off excise taxation on inputs. For this, the basic approach to be followed is to move towards the extension of ongoing system of proforma credit to all excisable commodities. A few sector/products like textile products, petroleum and tobacco have been left for this purpose. This programme is to be implemented in a phased manner over a period of years mainly considering its implications on revenue account.

It is important to mention that neither the MODVAT programme intends to raise maximum revenue nor to give substantial relief on excise. Any loss of duty on inputs will be recouped through higher excise taxation on final products. Thus, the shifting of burden of excise taxation away from inputs on to their final products is the core of the MODVAT scheme. Such shifting of tax burden also implies that the richer will have to bear more tax burden than the poor. It is good to reduce different in income levels between the rich and the poor.

## 13.13 Summary:

Besides Central Government incentives, tax concessions and subsidies, the state governments too after fiscal and monetary incentives and subsidies help entrepreneurs setting up their industries in the states to overcome certain disadvantages. The entrepreneurs are attracted to some states for their package of incentives, tax concessions and subsidies.

The need for tax benefit to small-scale industries is justified on two grounds:

(i) to promote investment in small-scale industries, and (ii) to provide them tax relief in the initial period. Accordingly, various tax benefits are provided to small-scale industries. The principal among them are tax holiday, depreciation allowance rehabilitation allowance, investment allowance, amortisation of certain preliminary expenses, etc. In addition, in order to promote industrialisation in the rural and backward areas in the country, specific tax benefits are allowed to the small-scale industries working in these areas.

Besides, MODVAT envisages special tax benefits on inputs and final products of small-scale industries. On the whole, tax benefits to small-scale industries intend to promote the development of small sector in the country.

## 13.14 Self-Assessment Questions:

**I.** 1. Discuss the special tax benefits available to small-scale industries (Entrepreneurs) working in rural and backward areas.

2. Explain the various tax benefits available to small-scale industries in India.

**II.** Short Answer Questions:

(a) Tax Holiday

(b) Rehabilitation Allowance

(c) Investment Allowance

(d) MODVAT and Small-Scale Industries.

## 13.15 Reference Books:

1. S.S. Khanka; *Entrepreneurial Development;* S. Chand & Company Ltd., New Delhi, 1990.

2. Vasant Desai ; *Dynamics of Entrepreneurial Development and Management,* Himalaya Publishing House, New Delhi - 1995

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**Lesson - 14**

# MARKET AND DEMAND ANALYSIS

## 14.0 Objectives:

After completion of this lesson, we should be able to understand:

* importance of Market and Demand Analysis
* situational analysis and specification of objectives
* collection of secondary information
* demand forecasting
* market planning

## Structure:

## 14.1 Introduction:

The first step in project analysis is to estimate the potential size of the market for the product proposed to be manufactured (or service planned to be offered) and get an idea about the market share that is likely to be captured. Put differently, market and demand analysis is concerned with two broad issues; what is the likely aggregate demand for the product/service? What share of the market will the proposed project enjoy?

These are very important, yet difficult, questions in project analysis. Intelligent and meaningful answers to them call for an indepth study and assessment of various factors like patterns of consumption growth, income and price elasticity of demand, composition of market, nature of competetion, availability of substitutes, reach of distribution channels, so on and so forth. Yet, in many cases project feasibility studies, seem to make a short shrift of market and demand analysis. It is not uncommon to find cursory statements like “the market is attractive” or “the demand is expected to exceed supply” as substitutes for a thorough market and demand analysis in project evaluation exercises.

## 14.2 The Key Steps Involved in Market and Demand Analysis:

Given the importance of market and demand analysis, it should be carried out in an orderly and systematic manner. The key steps involved in market and demand analysis are depicted in Exhibit - 1. This lesson discusses these steps. It is organised into seven sections as follows:

* Situational analysis and specification of objectives.
* Collection of secondary information
* Conduct of marketing survey
* Characterisation of the market
* Demand forecasting
* Uncertainties in demand forecasting
* Market planning

## 14.3 Situational Analysis and Specification of Objectives:

In order to get a "feel" of the relationship between the product and its market, the project analysis may informally talk to customers, competitors, middlemen, and others in the industry, wherever possible, he may look at the experience of the company to learn about the preferences and purchasing power of customers, actions and strategies of competitors, and practices of the middlemen.

If such a situational analysis generates enough data to measure the market and get a reliable handle over projected demand and revenues, a formal study need not be carried out, particularly when cost and time considerations so suggest. In most cases, ofcourse, a formal study of the market and demand is warrated. To carry out such a study, it is necessary to spell out its objectives clearly and comprehensively. Often this means that the intuitive and informal goals that guide situational analysis need to be expanded and articulated with greater clarity. A helpful approach to spell out objectives is to structure them in the form of questions. Ofcourse, in doing so, always bear in mind how the information generated will be relevant in forecasting the overall market demand and in assessing the share of the market that the project will capture. This will ensure that questions not relevant to the market and demand analysis will not be asked unnecessarily.

To illustrate, suppose that a small but technologically competent firm has developed an improved air cooler based on a new principle that appears to offer several advantages over the conventional air coder. The Chief Executive of the firm needs information abut where and how to market the new air cooler. The objectives of the market and demand analysis in this case may be to answer the following questions:

* Who are the buyers of air coolers.
* What is the total current demand for air coolers.
* How is the demand distributed temporally (pattern of sales over the year) and geographically?
* What is the break-up demand for air coolers of different sizes?
* What price will the customers be willing to pay for the improved air cooler?
* How can potential customers be convinced about the superiority of the new cooler?
* What price and warranty will ensure its acceptance.
* What channels of distribution are most suited for the air cooler? What trade margins will induce distributors to carry it?
* What are the prospects of immediate sales?

## 14.4 Collection of Secondary Information:

In order to answer the questions listed while delineating the objectives of the market study, information may be obtained from secondary and/or primary sources. Secondary information is information that has been gathered in some other context and is already available. Primary information, on the other hand, represents information that is collected for the first time to meet the specific purpose on hand. Secondary information provides the base and starting point for the market and demand analysis. It indicates what is known and often provides leads and cues for gathering

primary information required for further analysis. This section looks at secondary information and the following at primary information.

### 14.4.1 General Sources of Secondary Information:

The important sources of secondary information useful for market and demand analysis in India are mentioned below:

(a). Census of India

(b). National Sample Survey Reports

(c). Planning Commission reports

(d). Statistical Abstracts of the Indian Union

(e). An Annual Publication Year Book

(f). An Annual Publication of the United Nations

(g). Economic survey of Ministry of Finance

(h). An Annual Publication of Ministry of Industrial Development

(I). Annual Reports Ministry of Commerce and Industry

(j). Annual Bulletin of Statistics of Exports and Imports

(k). Techono-Economic Surveys

(l). Industry Potential Survey

(m). The Stock Exchange Directory

(n). Monthly studies of production of selected industries

(o). Monthly Bulletin of Reserve Bank of India

(p). Publications of Advertising Agencies.

## 14.5 "Conduct of Market Survey"

Secondary information, though useful, often does not provide a comprehensive basis for market and demand analysis. It needs to be supplemented with primary information gathered through a market survey, specific to the project being appraised.

The market survey may be a census survey or a sample survey. In a census survey, the entire population is covered. (The word 'Population is used here in a particular sense. It refers to the totality of all units under consideration in a specific study. Examples: All industries using milling machines, all readers of the Economic Times) census surveys are employed principally for intermediate goods and investment goods when such goods are used by a small number of firms. In other cases a census survey is prohibitively costly and may also be infeasible. For example, it would be inordinately expensive - in fact almost impossible - to cover ever user of Lifebuoy or every person in the income bracket Rs.10,000 - Rs.15,000.

Due to the above mentioned limitations of the census survey, the market survey, in practice, is typically a sample survey. In such a survey a sample of population is contracted or observed and

relevant information is gathered. On the basis of such information, inferences about the population may be drawn.

The information sought in a market survey may relate to one or more of the following:

* Total demand and rate of growth of demand
* Demand in different segments of the market
* Income and price elasticities of demand
* Motives for buying
* Purchasing plans and intentions
* Satisfaction with existing products
* Unsatisfied needs
* Attitudes towards various products
* Distributive trade practices and preferences
* Socio-economic characteristics of buyers.

## Steps in a Sample Survey:

Typically, a sample survey consists of the following steps:

**Define the Target Population:**

In defining the target population the important terms should be carefully and unambiguously defined. The target population may be divided into various segments which may have differing characteristics. For example all television owners may be divided into three to four income brackets.

**(a) Select the sampling scheme and sample size:**

There are several sampling schemes; simple random, cluster type, sequential, stratified and systematic sampling. Therefore select the suitable model sampling according to the organisation structure.

**(b) Develop the Questionnaire:**

Industry and trade market surveys, in comparison to consumer surveys, generally involve more technical and specialised questions.

**(c) Recruit and Train the Field Investigators:**

The questionnaire is the principal instrument for eliciting information from the sample of respondents. In this connection recruiting and training of field investigators must be planned and provide training to the investigators to get the quality information.

(d) Obtain Information as per the questionnaire from the sample of respondents.

(e) Scrutinise the information gathered carefully and systematically.

(f). Analyse and interpret the information.

Results of the data based on the sample survey will have to be extrapolated to the target population. For this purpose, appropriate inflationary factors, based on the ration of the size of the target population to the size of the sample studies, will have to be used. The statistical analysis of data should be directed by a person who has a good background in statistics as well as economics.

### Some Problems:

A market researcher in India has to contend with the following problems.

**Heterogeneity of the Country:** Since it is impossible to cover all the states in an all India Survey, the country has to be divided into broad territories going beyond the state boundaries. This causes problems in comparing the findings of different research agencies.

**Multiplicity of Language:** Related to the above difficulty is the problem of multiplicity of languages confronted by a research agency interested in conducting an all India Survey.

**Design of Questionnaire:** Scaling techniques, commonly recommended in marketing research literature, involve a five-point scale or a seven-point scale. Such refined scales are not easily amenable to translation in regional languages. More important, they are often not comprehensible to a vast majority of respondents who may lack the education and sophistication to understand them. Hence, when refined scaling techniques are used, answers tend to be erratic and inconsistent. It is perhaps desirable to rely more on open-ended questions and less on pre-coded questions on definite scales.

## 14.6 Characterisation of the Market:

Based on the information gathered from secondary sources and though the market survey, the market for the product/service may be described in terms of the following:

* Effective demand in the post and present
* Breakdown of demand
* Price
* Methods of distribution and sales promotion
* Consumers
* Supply and Competition
* Government Policy

## 14.7 Effective Demand in the Past and Present:

To gauge the effective demand in the post and present, the starting point typically is apparent consumption which is defined as,

**Production + Imports - Exports - Changes in stock level.**

The figure of apparent consumption has to be adjusted for consumption of the product by the producers and the effect of abnormal factors. The consumption series, after such adjustments, may be obtained for several years.

In a competitive market, effective demand and apparent consumption are equal. However, in most of the developing countries, where competitive market do not exist for a variety of products due to exchange restrictions and controls on production and distribution, the figure of apparent of apparent consumption may have to be adjusted for market imperfections. Admittedly, this is often a difficult task.

## 14.8 Breakdown Demand:

To get a deeper insight into the nature of demand, the aggregate (total) market demand may be broken down into demand for different segments of the market. Market segments may be defined by (i) nature of product, (ii) consumer group, and (iii) geographical division.

**Nature of Product:** One generic name often subsumes many different products: steel covers sections, rolled products; and various semi-finished products; commercial vehicles, cover trucks and buses of various capacities; so on and so forth.

**Consumer Groups:** Consumers of a product may be divided into industrial consumers and domestic consumers. Industrial consumers may be sub-divided industry-wise. Domestic consumers may be further divided into different income groups.

**Geographical Groups:** A geographical breakdown of consumers is helpful, particularly for products which have a small value-to-weight relationship and for products which require regular, efficient after-sales service.

Why is segmental analysis required? Segmental information is helpful because the nature of demand tends to vary from one segment to another. The demand from consumers in high income brackets may not be sensitive to price variations whereas the demand from consumers in low income brackets may be very sensitive to price variations and different marketing strategies may be very sensitive to price variations and different marketing strategies may be appropriate for different market segments.

## 14.9 Price:

Price statistics must be gathered along with statistics pertaining to physical qualities. It may be helpful to distinguish the following types of prices: (i) manufacturer's price quoted as FOB (free on board) price or CIF (Cost, Insurance and freight) Price (ii) landed price for imported goods, (iii) average wholesale price and (iv) average retail price.

## 14.10 Methods of Distribution and Sales Promotion:

The method of distribution may vary with the nature of the product. Capital goods, industrial raw materials or intermediates, and consumer products tend to have different distribution channels. Likewise, methods used for sales promotion (advertising, discounts, gift schemes, etc.) may vary from product to product.

The methods of distribution and sales promotion employed presently and their rational must be specified. Such a study may explain certain patterns of consumption and highlight the difficulties that may be encountered in marketing the proposed products.

## 14.11 Consumers:

Consumers may be characterised along two dimensions as follows:

| Demographic and Sociological | Attitudinal |
|---|---|
| Age | Preferences |
| Sex | Intentions |
| Income | Habits |
| Profession | Attitudes |
| Residence | Responses |
| Social background | |

## 14.12 Supply and Competition:

It is necessary to know the existing sources of supply and whether they are foreign or domestic. For domestic sources of supply, information along the following lines may be gathered: location, present production capacity, planned expansion, capacity utilisation level, bottlenecks in production, and cost structure.

Competition from substitutes and near-substitutes should be specified because almost any product may be replaced by some other product as a result of relative changes in price, quality, availability, promotional effort, and so on.

## 14.13 Government Policy:

The role of the government in influencing the demand and market for a product may be significant. Governmental plans, policies and legislations, which have a bearing on the market and demand of the product under examination should be spelt out. These are reflected in, production targets in national plans, import and export trade controls, import duties, export incentives, excise duties, sales tax, industrial licensing, preferential purchases, credit controls, financial regulations, and subsidies/penalties of various kinds.

## 14.14 Demand Forecasting:

After gathering information about various aspects of the market and demand from primary and secondary sources, an attempt may be made to estimate future demand. A wide range of forecasting methods is available to the market analyst. These may be classified in three categories as shown in exhibit - The methods listed in this exhibit are described in some detail below:

### Methods of Demand Forecasting:

**(I). Qualitative Methods:** These methods rely essentially on the Judgement of experts to translate qualitative information into quantitative estimates. The important qualitative methods are:

* Jury of executive method
* Delphi method

### (II). Time Series Projection Methods:

These methods generate forecasts on the basis of an analysis of the historical time series. The important time series protection methods are:

* Trend projection method
* Exponential smoothing method
* Moving average method

### (III). Causal Methods:

More analytical than the preceding methods, causal methods seek to develop forecasts on the basis of cause-effect relationships specified in an explicit, quantitative manner. The important causal methods are:

* Chain ratio method
* Consumption level method
* End use method
* Leading indicator method
* Econometric method

## 14.15 Uncertainties in Demand Forecasting:

Demand forecasts are subject to error and uncertainty which arise from three principal sources.

* Data about past and present market
* Methods of forecasting
* Environmental change

### 14.15.1 Data about Past and Present Market:

The analysis of post and present market, which serves as the springboard for the projection exercise, may be vitiated by the following inadequacies of data:

**Lack of Standardisation:** Data pertaining to market features like product, price, quantity, cost, income etc. may not reflect uniform concepts and measures.

**Few Observations:** Observations available to conduct meaningful analysis may not be enough.

**Influence of Abnormal Factors:** Some of the observations may be influenced by abnormal factors like war or natural calamity.

### 14.15.2 Methods of Forecasting:

Methods used for demand forecasting are characterised by the following limitations:

**Inability to handle unquantifiable Factors:**

Most of the forecasting methods, being quantitative, cannot handle unquantifible factors which sometimes can be of immense significance.

**Unrealistic Assumptions:** Each forecasting method is based on certain assumptions. For example, the trend projection method is based on the 'mutually compensation effects premise and the end use method is based on the constancy of technical coefficient. Uncertainly arise when the assumptions underlying the chosen method tend to be unrealistic and erroneous.

**Excessive Data Requirement:** In General, the more advanced a method, the greater the data requirement.

### 14.15.3 Environmental Changes:

The environment in which a business functions is characterised by numerous uncertainties. The important sources of uncertainty are:

1. Technical Change
2. Shift in Government Policy
3. Developments on the International Scene
4. Discovery of New Sources of Raw Material and
5. Vagaries of Monsoon.

## 14.16 Summary:

Given the importance of market and demand analysis, it should be carried out in an orderly and systematic manner. The key steps in such analysis are:

(i). Situational analysis and specification of objectives, (ii) Collection of secondary information, (iii) Conduct of market survey, (iv) Characterisation of the market, (v) Demand forecasting, and (vi) Market Planning.

* For purposes of a market study, information may be obtained from secondary and/or primary sources.
* Secondary information is information that has been gathered in some other context and is already available, while secondary information is available economically, its reliability, accuracy, and relevance for the purpose under consideration must be carefully examined.
* Based on the information gathered from secondary sources and through market survey, the market for the product/service may be described in terms of the following effective demand in the past and present; breakdown of demand; price; methods of distribution and sales promotion; consumers; supply and competition; and government policy.

* After gathering information about various aspects of the market and demand from primary and secondary sources, an attempt may be made to estimate future demand. A wide range of forecasting methods is available to the market analyst. These may be divided into three broad categories, viz., qualitative methods, time series projection methods, and causal methods.

* To enable the product to reach a desired level of market penetration, a suitable marketing plan, covering pricing, distribution, promotion and service, needs to be developed.

## 14.17 Self-Assessment Questions:

1. How is Market analysis and demand analysis useful to an entrepreneur.

2. How would you charecterise the market.

3. Discuss the uncertainties in demand forecasting. How can one cope with these uncertainities.

4. How would you evaluate secondary information.

## 14.18 Reference Books:

1. Prasanna Chandra; *Projects,* TATA McGraw-Hill Publishing Company Ltd., New Delhi, 2004.

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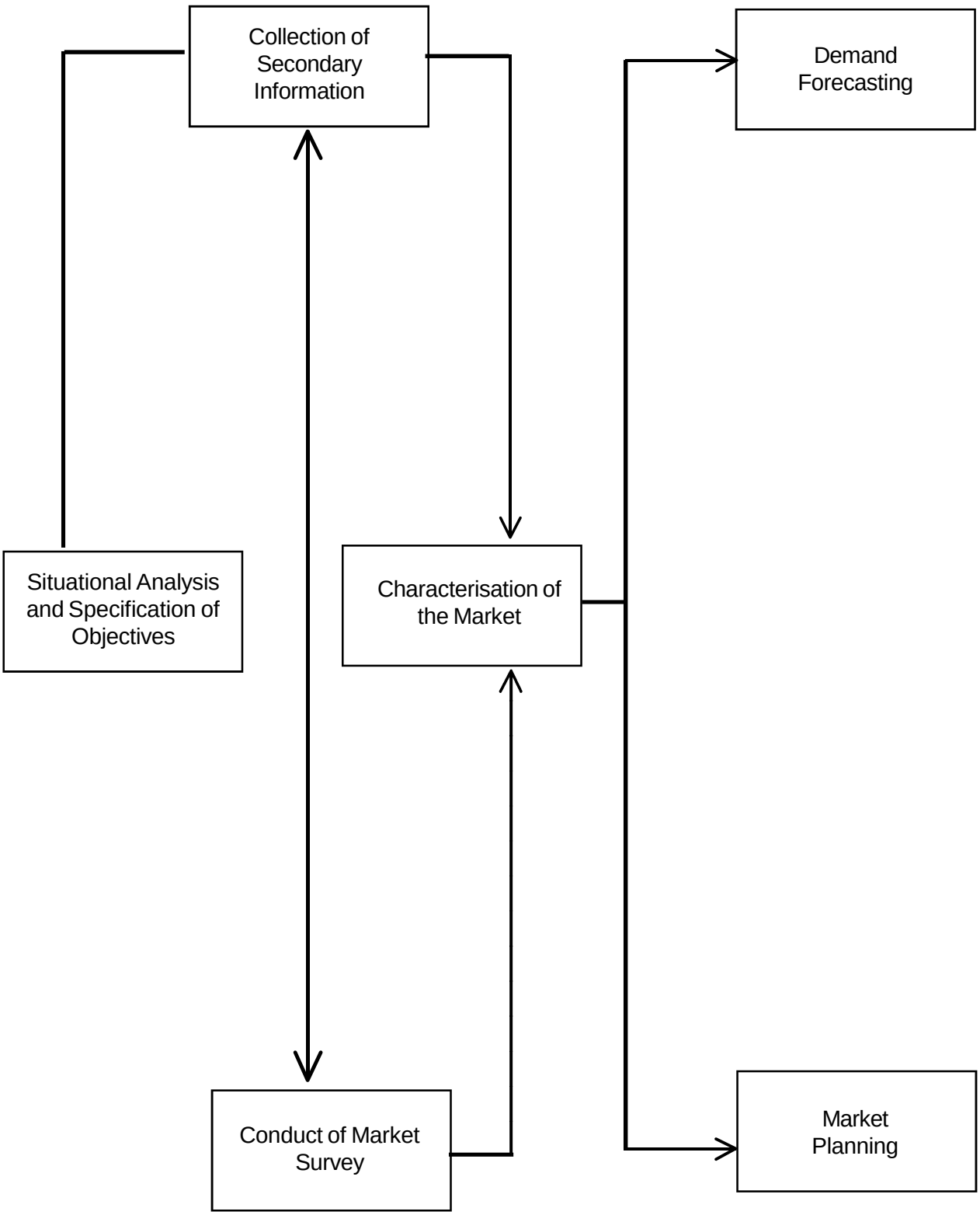



**Exhibit - 1: Key steps in Market and Demand Analysis and their Inter-Relationship**

## Lesson - 15

# INVESTMENT PROCESS

## 15.0 Objectives:

After completion of this lesson, we should be able to understand:

* concept of investment
* economic investment, business investment
* financial investment
* investment process
* importance of investment decision process
* characteristics of investment
* classification of investment
* factors favourable for investment decision

## Structure:



## 15.1 Introduction:

A firm raises capital from various sources for investment in current assets and fixed assets. The various sources from which capital can be raised have been discussed in previous lessons. The founds raised from various sources have to been invested on short term or long term basis. The entrepreneur has to make a clear assessment of the rate of return on his investments. Hence, there is a need to study the concept 'investment' in detail.

The term 'investment' denotes different meanings and we have to understand the following three basic concepts of investment.

**(a) Economic Investment:** According to economists, the term investment refers to net additions to the capital stock of society. The term capital stock includes goods which are used in the production of other goods such as building, machinery, equipment, inventories etc.

**(b) Business Investment:** It refers to employment of funds in business with an aim of achieving additional income or growth in value. The essential quality of this investment is that it involves waiting for a reward.

**(c) Financial Investment:** This refers to putting money into securities, i.e. shares or debentures, real estate, mortgages, deposits etc. Financial Investors are the suppliers of capital and in their view investment is a commitment of a person's funds to derive future income in the form of interest, dividend, rent, premium, or the appreciation of the value of their principal capital.

In this lesson, the term 'investment' is used in its 'economic sense' as the entrepreneurs of the new project are very much concerned with this activity.

## 15.2 Investment Process:

Investment Process refers to detailed assessment of the return on investment on short and long term bases. The process of investment decision refers to designing and carrying through a systematic programme for investing funds in long term or fixed assets of the firm. It is essentially a continuous function as the firm may so for expansion and replacement of fixed assets. Hence, keen watchful steps must be taken to invest the funds in the long term assets to get the derised result.

## 15.3 Importance of Investment Decision Process:

Investment plays a crucial role in the overall economic development of a country. It decides the process and direction of growth. The importance of invest decision can be highlighted as follows:

**(i). Profitability:** Since investment decisions involve greater amount of risk on account of unforeseen reasons, a right decision is to be taken to have a favourable impact on the profitability and competitive position of the firm.

**(ii). Regular returns:** Investment decisions involve usually huge funds and remain blocked throughout the life time of the project. Hence, the investment proposal should ensure a regular return on the investments.

**(iii). Survival:** Investment decisions are not easily reversible within a short period. If a wrong investment decision is taken, it can be avoided only at a "heavy capital loss". Alternatively, if the firm allows the project to be completed, it will have to bear huge periodical losses for a long period to come. Hence, proper evaluation of investment proposal is necessary to serve the long-term survival of the firm.

**(iv). Quality of Products:** Investment decision helps in improving the quality of products and creates new demand. It is because investment in right type of machinery, equipment and materials paves the way for the manufacturing of qualitative goods.

**(v). Expansion:** Investment decision helps in the expansion of fixed assets with the growth of the firm. Hence, the correct investment decision enables to invest the funds in new projects also.

**(vi). Cost Reduction:** Investment decision helps in availability of more funds for the firm. When more funds are available for short term and long term needs, large scale production is possible and the entrepreneur can avail the economics of it. This will result in cost reduction.

**(vii). Achieving Social Objectives:** Investment decision helps in increasing the availability of goods to the customers. This situation avoids artificial scarcity, adulteration and exploitation by the trader. Hence, the customers, in turn the society, is very much benefited.

The discovering and development of goods investment proposals require sustained management effort. The good investment decision results in reduction of costs, increased revenue, simplification of production process customer satisfaction etc.

## 15.4 Characteristics of Investment:

The important characteristics of investments are as follows:

### (i). Risk and Uncertainity:

Different capital investment proposals have different degree of risk and uncertainity. Risk involves situations in which the probabilities of a particular even occurring are known whereas in uncertainity, the probabilities are not known. Risk and uncertainity in capital investment decision may be due to general economic conditions, competition, technological changes, consumer preferences, labour conditions, frequent changes in government policies etc.

### (ii). Return on Investment:

Capital investment decisions are based on anticipated return on investment. An estimate of future return or benefits accuring from the investment proposal is vital in the investment decision.

### (iii). Safety for Investment:

Investment decision also depends upon the safety for funds and assurance of property rights. The political climate should also be conducive to investment which lends stability to the capital market.

### (iv). Utility of Investment:

The utility of investment must be directed towards development, profit, power, wealth, capital generation and social welfare activities.

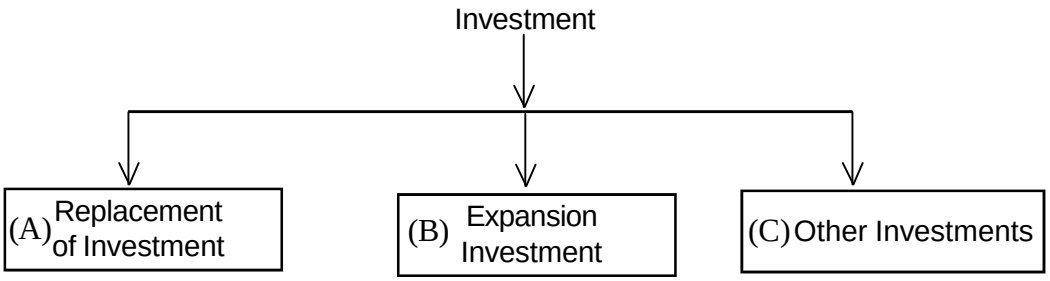
### (v). Liquidity of Investment:

Investment in assets also depends on their liquidity. Every investor requires a minimum liquidity in his investments. But investments like stocks and property or real estate cannot ensure immediate liquidity.

The above characteristics must be considered by the entrepreneur while taking investment decision.

## 15.5 Classification of Investment:

The investment may be broadly classified as follows:




(a). Modernisation Investments

(b). Rationalisation Investments

(c). New Product Investments

(d). Research and Development Investment

(e). Marketing and Sales Investments

(f). Human Resource Development Investments

(g). Welfare Investment

(h). Obligatory Investments

(i). Prestige - Value Investments

**(1). Replacement Investment:** It refers to investment in the replacement of existing assets with the new assets.

**(2). Expansion Investment:** It refers to investment in the purchase of completely new assets for expansion of the project or firm.

**(3). Modernisation Investments:** It refers to investment on updating or improving the existing assets such as machinery etc, to suit to the requirements of changed technology.

**(4). Rationalisation Investments:** It refers to investment on the reorganisation of the firm by the application of scientific methods with a view to reducing costs.

**(5). Research and Development Investments:** It refers to investment on Research and Developmental activities aimed at acquiring new knowledge or applying existing knowledge to practical purposes.

**(6). Marketing and Sales Investments:** It refers to investment on various marketing related activities to increase the sales, market share and goodwill for its products. For example, establishing sales showroom etc.

**(7). Human Resources Development Investment:** It refers to investment on human resource development such as investment made to improve efficiency of staff, educational and training projects.

**(8). Welfare Investments:** It refers to investment made on welfare activities of staff such as medical and health, recreation, housing, vehicles etc. These welfare projects promote the morale of the staff.

**(9). Obligatory Investments:** It refers to those investments which are made to comply with statutory requirements. For examples, it is obligatory on the part of the employer under Factories Act, 1948 to make provision for accident prevention devices. Canteen building, rest room, fire fighting devices etc.

**(10). Prestige - Value Investments:** It refers to such type of investments which would create a favourable image in the minds of the public. For example, investment may be made on guest houses, public relation department, construction of community halls, temples etc.

Thus, the entrepreneur has to go for multi-based investments for the success of the project undertaken by him.

## 15.6 Factors favourable for Investment Decisions:

The following six factors are taken into consideration for investment decision:

**(1). The amount of Investment:**

If the firm is financially sound and sufficient funds are available at its disposal, it can venture to take up all investment proposals which give a more reasonable rate of return than the minimum acceptable rate.

**(2). Minimum rate of return on Investment:**

Every entrepreneur expects a minimum rate of return on his investment. The minimum rate of return is usually determined on the basis of cost of cost of capital. It the capital investment proposal yields a rate of return less than the cost of capital, the proposal may be rejected.

**(3). Return expected from the Investment:**

It is necessary to estimate the future returns or benefits which accrue from the investment proposal. Its is because the investment decision depends on the increased return in the future. There are two methods to quantity the benefits which accrue from investment decision.

They are accounting profit and cash flows. The term accounting profit is similar to the income concept used in accounting, on the other hand, the cash flows represent the cash generated by the project. Excess of cash inflows over cash outflows is termed as cash flows.

**(4). Ranking of Investment Proposals:**

When all the proposed projects appear to be acceptable on the basis of their profitability, the projects have to be ranked in order by their profitability, to determine the priorities for them. Properties are much required particularly when the funds are scarce and capital is rationed. Ranking of the proposed projects helps in utilising the available capital to derive the high profitability.

**(5). Risk and Uncertainty:**

Different capital investment proposals have different degrees of risk and uncertainity. Risk in capital investment decision may be on account of general economic conditions, competition, technological developments, consumer preferences, labour conditions etc.

On account of these reasons the revenues, costs and economic life of particular investment may become uncertain. Hence, a proper adjustment must be made between risk and uncertainity while capital investment decisions are taken by the entrepreneur.

**(6). Effect of Non-Monetary Factors:**

The effect of various non-monetary factors should be considered while capital investment decisions are taken by the entrepreneur. Non-monetary factors include extent of competition prevailing, product line of competitors, effect on the state of existing product, market share, image of the companies etc. Effect of all these factors on new project should be weighed before an investment decision in taken by the entrepreneur.

Thus, the analysis of above six factors certainly helps the entrepreneurs to take a correct investment decision relating to the proposed project.

## 15.7 Selecting a Good Investment:

Since investment decisions involve large amounts, it is essential that a right decision is required to influence the profitability of investment proposals, a number of methods are used such as pay back period, return on investment, discounted cash flow etc., However, we have to adopt a good criterion to determine the profitability of the project and to select a good investment proposal. A good criterion should posses the following characteristics for measuring the profitability of the investment proposals;

i) It should summarise the merits and demerits of each of the investment proposals.

ii) It should enable to have a comparison between the two or more proposed projects.

iii) It must be simple to operate and easy to understand.

iv) It should be expressed in terms compatible with long range objectives of the firm.

## 15.8 Stage in the Investment Process:

Investment process helps the entrepreneur to make a clear assessment of the rate of return on investment in a short or long period. The investment process is generally described in four stages which are as follows:

(i). Investment Policy

(ii). Investment Valuation

(iii). Investment Analysis, and

(iv). Portfolio Construction

### (i). Investment Policy:

Firstly, the investment policy is formulated which depend upon the firm's objectives. The objective may be to improve the quality of products, diversification, cost reduction, satisfaction of customers etc. These objectives determine the investible wealth, and identify the potential investible assets. The investment policy describes the attributes of investment assets and the process of allocation of wealth to different assets.

### (ii). Investment Valuation:

Secondly, the valuation of stocks, debentures, bonds and other assets is undertaken. Here, the entrepreneur makes the estimation of the future returns or benefits which accrue from the

investment proposal. The valuation of an asset is based on the return on the asset and price paid for it. If the investment proposal yields a rate of return which is less than the cost of capital, the proposal may be dropped, and if the return is higher it would be accepted.

### (iii). Investment Analysis:

This is the third crucial stage in the investment process. Here, the entrepreneur has to assess the desirability of each of the investment proposals. In order to analyse the profitability of investment proposals, a number of methods are used such as pay back period, return on investment, discounts, cash flow etc. with regard to equity stock analysis, screening and analysis of industries is undertaken to know the past performance and future prospects of such industries. In case of debentures and bonds, analysis of yields structure is undertaken based on interest rates, issue and redemption conditions etc. These fixed yield bearing securities ensure a definite return and are less risky. While the variable yield securities such equity shares do not ensure any fixed return. The return depends on the earnings of the company. In case of investment in other assets, a qualitative analysis is undertaken. The entrepreneurs have to strees upon the quality, durability and performance of the assets when this investment proposal is being analysed by them.

### (iv). Portfolio Construction:

In the last stage of investment process, the entrepreneur has to select that mix of the assets which promises most nearly to attain the objectives of the firm and ensures a higher return with minimum risk. This require the analysis and evaluation of past performance and appraisal of future performance of the companies. Here, he has to determine the diversification level, consider the investment timing, select the investment assets, allocate invertible wealth to investment assets and evaluate the portfolio for feeback.

Thus, the investment process contains four important stages. If the entrepreneur takes the proper precaution regarding these areas, a profitable investment decision would be emerged.

## 15.9 Summary:

Investment means an increase in building, equipment, inventories etc. which represents the capital stock of the society over the amount of equivalent goods that existed over a period of time. Investment process refers to detailed assessment of the return on investment on short and long term bases.

The investment may be broadly classified into three categories. viz., 1. Replace of Investment, 2. Expansion Investment and 3. Other Investments like Modernisation Investment, Rationalisation Investment etc.

The investment process is generally described in four stages which are four stages, viz.,

(1). Investment Policy

(2). Investment Valuation

(3). Investment Analysis and

(4). Portfolio Construction

If the entrepreneur takes the proper precaution regarding these areas, a profitable investment decision would be emerged.

## 15.10 Self-Assessments Questions:

1. What is investment process? Explain the importance of investment decision process.

2. How do you select a good investment? Explain.

3. Explain the different stages in the investment process.

### (II). Short Answer Questions:

1. What is Investment Analysis?

2. What is Replacement Investment?

3. What is Financial Investment?

4. What is Economic Investment?

## 15.11 Reference Books:

1. Bhalla, V.K. *Management of Financial Services,* Anmol Publications Pvt. Ltd., New Delhi, 2002.

2. Khanka, S.S. *Entrepreneurial Development,* S. Chand & Company Ltd., New Delhi, 2002.

3. Shankaraiah. A, *Entrepreneurship Development,* Kalyani Publishers, New Delhi, 2002.

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**Lesson - 16**

# BREAK - EVEN ANALYSIS

## 16.0 Objectives:

After completion of this lesson, we should be able to understand:

* concept of Financial Analysis
* techniques of Financial Analysis
* concept of Break-Even Analysis
* assumptions of Break-Even Analysis
* calculation of Break-Even Point
* uses of Break-Even Analysis
* Break-Even Chart - Importance

## Structure



## 16.1 Introduction:

Financial Analysis may be defined as the process of obtaining relevant economic information about a project in order to establish its financial viability. It is undertaken as one of the feasibility analysis in project formulation. Most of the data required for financial analysis are obtained from market analysis, technical analysis and cost analysis. In order to develop adequate financial information, financial analysis looks at the projected capital cost estimates, projected operating cost estimates, and operating revenue estimates. The information collected for the purpose are printed in the form proforma balance sheet, proforma operating statement and cash flow statement.

## 16.2 Techniques of Financial Analysis:

Having estimated the projected capital costs. Projected operating costs and operating revenue of a project and presented them in projected financial statements, the next step is to discover the economic facts about the project and the basis of an interpretation of such projected financial data. The objective of the financial analysis is to find out whether the project is attractive enough to secure funds needed for its various constituent activities and once having secured the funds whether the project will generate the benefits to realise the final objective for which it is undertaken. A large number of analytical tools have been developed to assist the process of financial analysis. Some of the tools are described in the following:

**1. Funds Flow Analysis:** A balance sheet reports the financial position of an enterprise at a particular point of time.

**2. Cash Flow Analysis:** When the concept of funds is assigned the meaning of cash and used to analyse the flow of funds in a firm, it is called cash flow analysis.

**3. Ratio Analysis:** Ratio analysis, simple defined, refers to the analysis and interpretation of financial statements through ratios. Ratios simply stated are statistical yardstick which provide a measure of relationship between one variable and another.

Similarly, the operational strategy can be evaluated by employing the cost-volume profit analysis and Break-Even Analysis.

## 16.3 Break-Even Analysis:

The operational strategy is concerned with the interplay of project operating costs and operating revenues. It can be evaluated in terms of cost-volume-profit (CVP) relationship and operational leverage. The CVP relationship defines the manner in which profits from a project vary with the changes in the levels of project activity. The operational leverage on the other hand defines the manner in which the project fixed costs offset these changes.

The Break-Even Analysis is the most widely known form of CVP analysis. A narrow interpretation of Break-Even Analysis refers to a system determining that level of activity where total cost is equal to total sales, i.e. the point of zero profit and zero loss. In a broad sense it refers to a system of analysis that can be used to determine the probable profit at any level of activity.

## 16.4 Assumptions of Break-Even Analysis:

Break-Even Analysis can be carried out in two ways : (a) Algebraic method and (b) Graphical method. Both the methods are based upon certain assumptions which are rarely found in practice. Some of the assumptions are as follows:

(i) All costs can be classified into fixed and variable elements.

(ii) While variable costs vary proportionately with volume, the fixed costs remain constant.

(iii) Selling price remains constant despite volume changes.

(iv) In the case of multiple products, sales mix also remains constant.

(v) Productivity per worker and efficiency of plant, etc., remain mostly unchanged.

Any change in any one of the above factors will effect the Break-Even point and the profits will be affected by factors other than volume. Hence, the results of the Break-Even Analysis should be interpreted subject to the limitations of the above assumptions.

## 16.5 Presentation of Break-Even Analysis:

There are two methods of presenting Break-Even Analysis. They are mathematical method and graphic method. The method to be used depends upon the choice of the management and availability of data.

### 16.5.1 : Mathematical Method:

This method of analysing cost-volume-profit relationship is based on fundamental equation of margical costing. For the sake of convenience the elements of costs can be written in the form of an equation which is as follows:

(i) Sales = Variable cost + Fixed expenses $\neq$ Profit/Loss.

(ii) Sales - Variable cost = Fixed expenses $\neq$ Profit/Loss.

(iii) Contribution = Fixed expenses $\neq$ Profit/Loss

In order to make profit, the contribution must be more than the fixed expenses and to avoid any loss, contribution must be equal to the fixed expenses. The marginal cost equation of S-V=F $\neq$ P is very useful to find any of the four factors i.e. sales, variable costs, fixed expenses and profit if three of these factors are known to us.

In order to understand the mathematical relationship between cost-volume-profit, it is desirable to understand the following four concepts, their calculation and applications;

a) Contribution

b) Break-Even Point

c) Profit - Volume Ratio, and

d) Margin of Safety

### a) Contribution:

Contribution is the difference between the sales and marginal cost of sales and it contributes towards fixed expenses and profit. Mathematically;

Contribution = Selling Price - Marginal Cost

or

Contribution = Fixed Expenses + Profit

or

Contribution - Fixed Expenses = Profit

Contribution is different from the profit which is the net gain in activity or the surplus and remain after deducting fixed expenses from the total contribution. Contribution is an important technique of studying the profitability of a product, department or division. It also helps to find out better product mix, and useful for profit planning and maximisation of profits of a concern.

**b) Break-Even Point:**

A business is said to break even when its total sales are equal to its total costs. It is a point of no profit no loss. At this point, contribution is equal to fixed cost. A concern which achieves BEP at less number of units will definitely be better than the concern where BEP is achieved at more units of sales. The algebraic equations:

i) BEP (units) = $\frac{F}{S-V}$ where;

F = Fixed Expenses

S = Selling price per unit

V = Variable cost per unit.

ii) BEP (Sales Value) = $\frac{F \text{x} S}{S-V}$ where;

F = Fixed Expenses

S = Total Sales

V = Total Variable Costs.

**c) Profit - Volume Ratio (P/V Ratio):**

P/V Ratio establishes the relationship between contribution to sales. The ratio is expressed as a percentage and it furnishes the details of profitability of various products, processes or departments. A high P/V ratio shows that even a slight rise in the volume without a corresponding increase in fixed cost would result in high profit. Therefore, it is advisable for management to increase sales by taking suitable measures such as advertising and other sales promotional measures. The P/V ratio can be increased by maximising contribution, which is possible by increasing the selling price, reducing the variable cost and by improving the product mix. The following formula can be used to calculate P/V Ratio;

$$\text{P/V Ratio} = \frac{Contribution}{Sales} X 100$$

Uses of P/V Ratio:

Following are the uses of P/V Ratio:

i) It helps in studying the profitability of operations of a business and establishes the relationship between contribution and sales.

ii) It helps in the determination of Break-Even point.

iii) It helps in determining the required selling price per unit.

iv) It helps in determining the sales to earn the amount of profit desired by the entrepreneur.

v) It helps in the determination of profit earned at any given volume of sales.

vi) It helps in ascertaining the variable cost for any volume of sales.

vii) It helps in determining the margin of safety.

### d) Marginal of Safety:

Margin of safety is the difference between the actual sales and the sales at break-even point. The soundness of the business can be known by looking into the margin of safety. It the distance between sales revenue and break-even point is long, it shows the soundness of the business. On the other hand, a smaller margin indicates the loss in sales revenue. The margin of safety is calculated as follows.

Margin of Safety = Actual Sales - BEP Sales

Or

$$\text{Margin of Safety} = \frac{profit}{P/V Ratio}$$

The margin of safety can be improved by taking the following measures:

i) Increasing the selling price

ii) Increasing the sales volume by increasing the production

iii) Improving the contribution margin through reduction in variable cost.

iv) Lowering BEP through reduction of fixed costs

v) Adopting a better profitable product mix.

vi) Substituting the existing products by more profitable products.

## 16.5.2 : Graphic Method of Break-Even Analysis:

In the graphic method of break-even analysis, break even charts are very popularly used. A break even chart is a graphical representation of marginal costing. It is considered to be one of the most useful graphic presentation of accounting data. It is a readable, reporting device that would otherwise require voluminous reports and tables to make the accounting data meaningful to the management. This chart shows the inter-relationship between cost, volume and profit. It shows the break-even point and also indicates the estimated cost and estimated profit or loss at various volumes of activity. There are three methods of drawing a break even chart. These have been explained with the help of the following illustration.

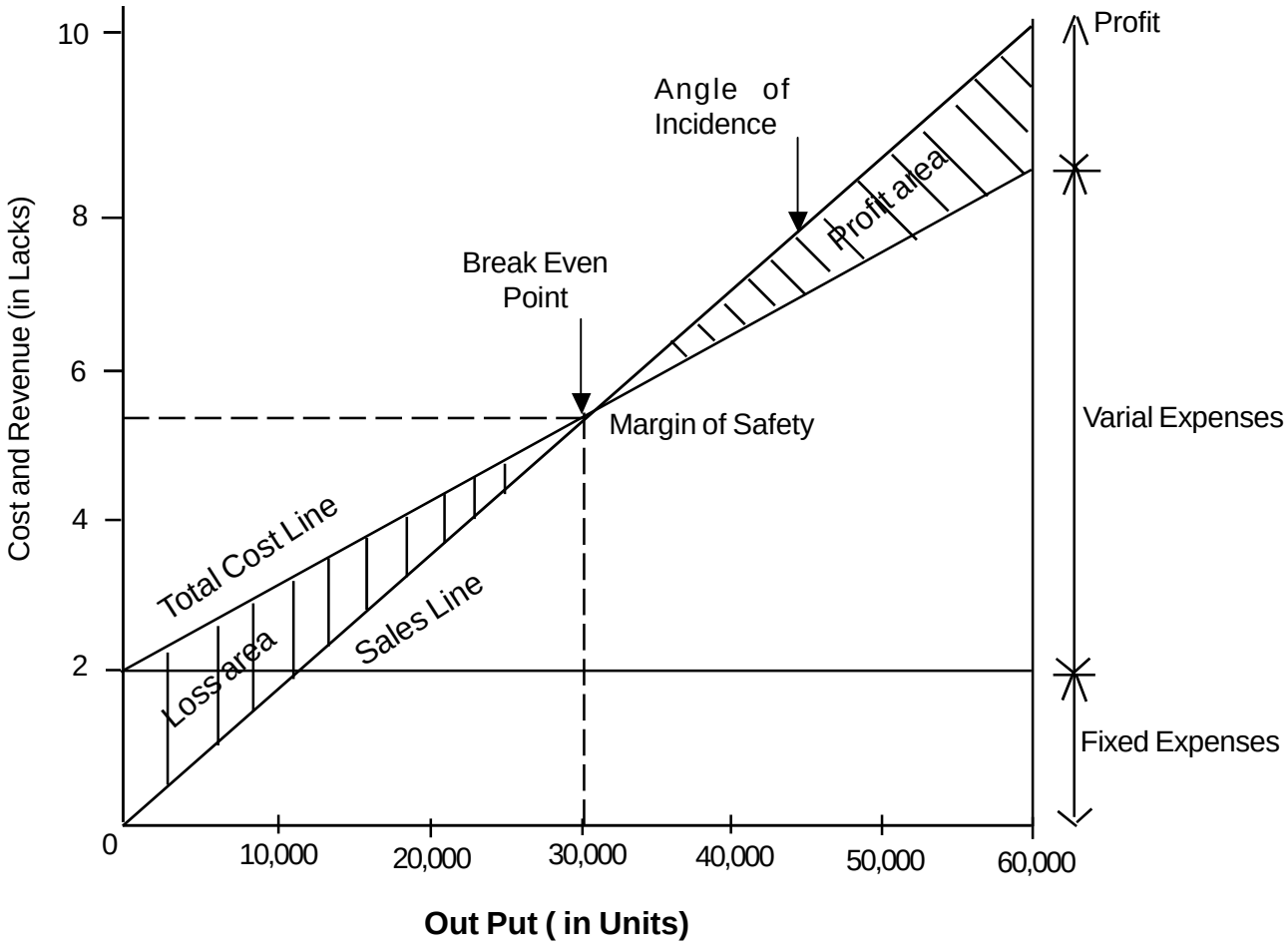
**Illustration:** From the following data, calculate the break even point and profit if output is 50,000 units by drawing a break even chart.

| Production (units) | Fixed Expenses (Rs.) | Variable Cost per unit (Rs.) | Selling price per unit (Rs.) | Total Cost (Rs.) | Total Sales (Rs.) |
|---|---|---|---|---|---|
| 0 | 1,50,000 | 10 | 15 | 1,50,000 | 0 |
| 10,000 | 1,50,000 | 10 | 15 | 2,50,000 | 1,50,000 |
| 20,000 | 1,50,000 | 10 | 15 | 3,50,000 | 3,00,000 |
| 30,000 | 1,50,000 | 10 | 15 | 4,50,000 | 4,50,000 |
| 40,000 | 1,50,000 | 10 | 15 | 5,50,000 | 6,00,000 |
| 50,000 | 1,50,000 | 10 | 15 | 6,50,000 | 7,50,000 |
| 60,000 | 1,50,000 | 10 | 15 | 7,50,000 | 9,00,000 |

**Solution:**

**First Method:** On the X axis of the graph, the number of units produced and, sold are presented and on the Y-axis costs and sales revenues are shown:

**Break Even Chart**



The fixed cost line is drawn parallel to X-axis. This line indicates that fixed expenses remain the same with any volume of production. The variable costs for different levels of activity are plotted over the fixed cost line at zero volume of production. This line can also be regarded as the total cost line because it starts from the point where fixed cost has been incurred and variable cost is zero. Sales values at various levels of output are plotted, joined and the resultant line is the sales line. The sales line will cut the total cost line at a point where the total costs are equal to total revenues and this point of intersection of two lines is known as 'Break Even Point ' means the point of no profit no loss. The number of units to be produced at the Break Even Point is determined by drawing a perpendicular to the X-axis from the point of intersection and measuring the horizontal distance from the zero point to the point at which the perpendicular is drawn. The sales value at Break Even Point is determined by drawing a perpendicular to the Y-axis from the point of intersection and measuring the vertical distance from the zero point to the point at which the perpendicular is drawn. Loss and Profit are as have been shown in the chart which show that if production is less than the Break Even Point, the business shall be running at a loss and if the production is more than the Break Even level, profit shall result.

## 16.6 Advantages of Break Even Charts:

The following are the advantages of Break Even Chart:

(1). It summarises and presents cost, volume and profit information on a graph is such a way that its significance may be grasped even with a cursory glance.

(2). The chart is very useful for taking managerial decisions because it shows the effect on profits of changes in fixed costs, variable costs, selling price and volume of sales.

(3). The chart is very useful for forecasting costs and profits at various volumes of sales.

(4). The Break Even Chart is a tool for cost control because it shows the relative importance of the fixed costs and the variable costs.

(5). Profitability of various products can be studied with the help of these charts and a most profitable product mix can be adopted. Profits at different levels of activity can also be ascertained.

(6). The profit potentialities can be best judged from a study of the position of the Break Even Point and the angle of incidence in the Break Even Chart.

(7). It is helpful in the determination of sales price which would give desired profits or a Break Even Point.

(8). It is helpful in knowing the effect of increase or reduction in selling price.

## 16.7 Limitations:

The following are the limitations of Break Even Chart:

(1). A Break Even Chart is based on a number of assumptions which may not hold good.

(2). A limited amount of information can be shown, in a break even chart. A number of charts will have to be drawn up to study the effect of changes in fixed costs, variable costs and selling prices.

(3). The effect of various product mixes on profits cannot be studied from a single break even chart.

(4). A break even chart does not take into consideration capital employed which is a very important factor in taking managerial decisions.

Inspite of the above limitations, the break even chart is a useful management device for analysing the problems, if it is constructed and used by those who fully understand its limitations.

## 16.8 Summary:

The operational strategy is concerned with the inter play of project operating costs and operating revenues. It can be evaluated in terms of cost-volume-profit (CVP) relationship and operational leverage. The CVP relationship defines the manner in which profits from a project vary with the changes in the levels of project activity. The operational leverage defines the manner in which the project fixed costs offset these changes.

The study of cost-volume-profit analysis is often referred to as Break Even Analysis (BEP) and the two terms are used inter-changeably. It is because the break even analysis is the most widely known form of cost-volume-profit analysis. Break Even Analysis refers to the study of relationship between costs, volume and profit at different levels of sales or production.

A break even chart is a tool for cost control because it shows the relative importance of the fixed costs and the variable costs. It is helpful in knowing the effect of increase or reduction in selling price.

There are two methods of presenting break even analysis. They are mathematical method and graphic method. The method to be used depends upon the choice of the management and availability of data.

## 16.9 Self-Assessment Questions:

1. What is Break Even Analysis? What are its advantages and disadvantages?
2. Explain the different modes of presenting the Break Even Analysis?
3. What is Break Even Analysis? State its importance.
4. Discuss the advantages and disadvantages of using Break Even Charts.
5. Explain the mathematical relationship between cost, volume and profit.

## 16.10 Reference Books:

1. Bhalla. V.K. *Management of Financial Services,* Anmol Publications Pvt. Ltd., New Delhi-2002.
2. Gupta. C.B. and Srinivasan N.P., *Entrepreneurial Development,* Sultan Chand & Sons, New Delhi-2001
3. Shankaraiah and Others, *Entrepreneurship Development,* Kalyani Publisher, New Delhi, 2002.
4. Vasanth Desai, *Dynamics of Entrepreneurial Development and Management,* Himalaya Publishing House, New Delhi, 1995.

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## Lesson - 17

# NEW PROJECT SECTION

## 17.0 Objectives:

After completion of this lesson, we should be able to understand :

* concept of project
* project classification
* project identification
* project selection
* elaborate upon the procedure to be followed to finally selected a project.

## Structure:



## 17.1 Introduction:

Entrepreneur, entrepreneurship and enterprise go hand in hand. By now, you have learnt who is an entrepreneur and what is entrepreneurship. Thus, you have learnt what do entrepreneurs do but relatively little how do they do it. In practice, an entrepreneur takes numerous decisions to convert his business idea into a running concern. In setting up his/her enterprise, his/her decision making process starts with project/product selection. In fact, project selection is the first corner stone to be laid down in setting up an enterprise. The selection of a right project goes to validate the trite proposition: “Well begun is half done”.

## 17.2 Meaning of Project:

The success or failure of an enterprise largely depends upon the project. In simple words, a project is an idea or plan that is intended to be carried out. The dictionary meaning of a project is that it is a scheme, design, a proposal of something intended or devised to be achieved...

A few definitions on ‘Project’

**Newman** ; defines that "a project typically has a distinct mission that it is designed to achieve and a clear termination point, the achievement of the mission"

**Gillinger** ; defines project "as the whole complex of activities involved in using resources to gain benefits".

According to **Encyclopedia of Management,** "a project is an organised unit dedicated to the attainment of a goal - the successful completion of a development project on time, within budget, in conformance with pre-determined programme specifications".

Now, a project can be defined as a scientifically evolved work plan devised to achieve a specific objective within a specified period of time.

It is also important to mention that while projects can differ in their size, nature, objectives, time duration and complexity, yet they partake of the following three basic attributes:

(i) A course of action

(ii) Specific objectives and

(iii) Definite time perspective

Every project has a starting point, an end point with specific objectives.

## 17.3 Project Classification:

Project classification is a natural corollary to the study of project idea.

Different authorities have classified projects differently. Following are the major classifications of projects.

### 17.3.1. Quantifiable and Non-Quantifiable Projects:

Projects for which a plausible quantitative assessment of benefits can be made are called 'quantifiable projects'. Projects concerned with industrial development, power generation, mineral development fall in this category. On the contrary, non-quantifiable projects are those in which a plausible quantitative assessment cannot be made. Projects involving health education and defence are the examples of non-quantifiable projects.

### 17.3.2. Sectoral Projects:

According to this classification, a project may fall in any one of the following sectors:

(i) Agriculture and Allied Sector

(ii) Irrigation and Power Sector

(iii) Industry and Mining Sector

(iv) Transport and Communication Sector

(v) Social Services Sector

(vi) Miscellaneous Sector

The project classification based on economic sectors is found useful in resource allocation more especially at macro levels.

### 17.3.3. Techno-Economic Projects:

Projects classification based on techno-economic characteristics fall in this category. This type of classification includes factors intensity - oriented classification, causation-oriented classification and magnitude-oriented classification. These are discussed as follows:

### (a) Factor Intensity-Oriented Classification:

Based on factor intensity classification, projects may be classified as capital intensive or labour intensive. If large investment is made in plant and machinery, the projects will be termed as 'capital intensive'. On the contrary, projects involving large number of human resources will be termed as 'labour intensive'.

### (b) Causation-Oriented Classification:

Where causation is used as a basis of classification, projects may be classified as demand based or raw material based projects. The very existence of demand for certain goods or services makes the project demand-based and the availability of certain raw materials, skills or other inputs makes the project raw material based.

### (c) Magnitude-Oriented Classification:

In case of magnitude-oriented classification, based on the size of investment involved in the projects are classified into large scale, medium-scale or small-scale projects.

Project classification based on techno-economic characteristics is found useful in facilitating the process of feasibility appraisal of the project.

The fact remains that inspite of increasing literature on entrepreneurship development, comparatively little is known about how an entrepreneur identifies and select a project. Hence, it is some what difficult to state in any categorical manner as to how an intending entrepreneur should proceed to select his/her project. As a matter of fact, project selection is not a nebulous idea. It is a well outlined game plan. There is a definite procedure of selecting a project. Basically, project selection consists of two main steps.

(1). Project Identification

(2). Project Selection

In what follows is their description one by one.

## 17.4 Project Identification:

If you ask any one intending entrepreneur what project he/she will select, the obvious answer would be "a project having a good market". But, the question is how without knowing the product could one determine the market? Whose market will one find out without knowing the item, i.e. product? Idea generation about a few projects provides a way out of above tangle.

### Idea Generation:

Project selection process starts with the generation of a product idea. In order to select the most promising project, the entrepreneur needs to generate a few ideas about the possible projects he/she can undertake. The project ideas can be discovered from various - internal and external sources. These may include:

(i) Knowledge of potential customer needs,

(ii) Watching emerging trends in demands for certain products,

(iii) Scope for producing substitute product,

(iv) Going through certain professional magazines catering to specific interests like electronics, computers etc.,

(v) Success stories of known entrepreneurs or friends or relatives,

(vi) Making visits to trade fairs and exhibitions displaying new products and services,

(vii) Meeting with the Government agencies,

(viii) Ideas given by the knowledgeable persons,

(ix) Knowledge about the Government policy, concessions and incentives, list of items reserved for exclusive manufacture in small-scale sector, and

(x) A new product introduced by the competitor.

All the these sources putting together may give a few ideas about the possible projects to be examined a the final project. This is also described as "Opportunity Scanning and identification".

After going through the above process, imagine, that we have been able to get five project ideas as a result of above analysis. These five projects ideas are:

(1) Nut and bolt manufacturing (industry)

(2) Lakhani Shoes (industry)

(3) Photo copying unit (Service-based industry)

(4) Electro-type writer servicing (Service-based Industry)

(5) Polythene bags for textile industry (ancillary industry)

From above list, now one project idea will be finally selected going through the following selection process.

## 17.5 Project Selection:

Project selection starts from where project identification ends. After having some project ideas, these are analysed in the light of existing economic conditions, the government policy and so on. A tool generally used for this purpose is, what is called in the managerial jargon, SWOT analysis. The intending entrepreneur analyses his/her strengths and weaknesses as well as opportunities/ competitive advantages and threats/challenges offered by each of the project ideas. On the basis of this analysis, the most suitable idea is finally selected to convert it into an enterprise. The process involved in selecting a project out of some projects is also described as the "Zeroing in Process".

What follows from above analysis is that there is a time internal involved in between project identification and project selection. But, in some cases, there may be almost notime gap between the two. An imaginary case can illustrate it.

Two friends Nikhil and chinmoy were travelling from Guwahati to Delhi by North East Express. Their train stopped at Allahabad. Some teenagers with guava baskets crowded the compartment. Almost every passenger purchased guava. So did Nikhil and Chinmoy also. They started eating guava. Chinmoy told to Nikhil: "The guavas are really delicious". Nikhil nodded. They reached Delhi by evening and parted company. While chinmoy went to his home Nikhil took Bramputra Mail to Allahabad. He contacted shopkeepers in Allahabad who were selling guavas. He finalised a business deal for them to send a packet of 1000 kgs of guavas daily to Delhi. Thus, Nikhil's business started from the third day when he was selling guavas in Delhi.

Here, one pertinent question for us is how did this idea make its headway into a business opportunity for Nikhil? In its answer, what can we mention is that Nikhil must have turned questions in his mind like:

(i) Who will buy his guavas?

(ii) What will be the size of the packet and what will be its price?

(iii) How much will be the cost of per kg. of guava?

Project identification and selection is half done in the process of establishing an enterprise. The entrepreneur needs to analyse other related aspects also like raw material, potential market, labour, capital, location, forms of ownership etc. It is necessary to mention that each of these aspects has to be evaluated independently and in relation to each other. This forms a continuous and "back and forth" process.

## 17.6 Summary:

Project is a well evolved work plan designed to achieve specific objectives within a specified period of time. The process of establishing an enterprise starts with project/product identification. Project identification is done by generating some project ideas. Each of these project ideas are then, evaluated with the help of a tool called 'SWOT' analysis. Thus, the idea found most suitable on the basis of 'SWOT' analysis is finally selected to convert it into an enterprise.

## 17.7 Self-Assessment Questions:

1. Define the term 'Project'. How will you classify the projects?
2. What do you understand by project identification? Discuss, with examples, the process involved in project identification?
3. Describe the steps involved in the identification and selection of a project.

## 17.8 Reference Books:

S.S. Khanka, *Entrepreneurial Development,* S. Chand & Company Ltd., New Delhi - 1999.

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**Lesson - 18**

# FACTORY DESIGN AND LAYOUT

## 18.0 Objectives:

After completion of this lesson, we should be able to understand:

* Importance of factory design, factory planning
* plant layout and factory building
* Importance of layout
* consideration in factory layout.

## Structure:



## 18.1 Introduction:

In creating a factory, an entrepreneur creates something which is attractive, useful and ingenious from material resources which lack the dimension of targeted benefits. For this, the entrepreneur uses his skills, abilities and strategies to combine a variety of material and human resources. These potential resources manifest themselves in the selection of the factory location, in planing and constructing the factory building, in procuring and installing machinery and equipment, in putting up other production facilities and auxiliary services, and in recruiting and selecting men of competence to use the physical resources for the purpose of producing goods.

Emphasis is being laid on the aspects of factory design, planning and layout.

This makes it imperative for ensuring smooth working of the small industrial activity be it in its administrative work or shop floor activity or even stores management. **Dr. Nau Nihal Singh** has aptly observed: “The planning and control of the supply and movement of materials and components

and the utilisation of plant and labour ensures that the necessary resources are available at every stage of manufacture to ensure the economic completion of a predetermined delivery programme, and constitute the management techniques of production planning and control".

**Concept of Factory Design:**

The term factory design refers to the plan for a particular type of building, arrangement of machinery and equipment, and provision of service facilities, lighting, heating, ventilation, etc., in the building.

## 18.2 Importance of Factory Design:

Factory design and layout of the factory are significant aspects of the factory organisations. They have direct relationship with the process of manufacturing, productively and value of the product. It also influences the operational costs of the enterprise. It also boots the morale of workers and ensures maximum supervision.

### Factors Affecting Factory Design:

The following factors influence the design of a factory:

(1). Location

(2). Nature of the manufacturing Process

(3). Plant Layout

(4). Functional Smoothness

(5). Material Handling and Movement

(6). Cost of Building

(7). Lighting, Ventilation and Service Facilities

(8). Nature of Product

(9). Future expansion, modernisation etc.

(10). Projecting the image of a factory

The factory design and layout should be flexible so that it may be adapted easily to technological change, modernisation, diversification and expansion with minimum cost and time.

## 18.3 Determinants of Factory Planning:

In preparing a factory plan, the small entrepreneur has -

(i) To determine the optimal size of the factory in accordance with the manufacturing plan, which includes a consideration of its envisaged future growth;

(ii) To select a proper location for the plant on the basis of the availability of infrastructure and market centres;

(iii) To prepare equipment layout on the basis of the class of work;

(iv) To prepare production methods when materials move continuously through a series of machine operations;

(v) To determine the type of structure required on the basis of the type of product with full safety measures;

(vi) To provide service facilities for workers and machines;

(vii) To schedule the construction and installation of machinery.

Any planning exercise requires of the planner a good knowledge of what is involved in the activity concerned, such as the nature of the materials to be handled, their quality and the quantity, the processes they have to subjected to, inspection and quality control at various stages, assembly procedures, packing etc. He should also know the sequence of operations. He should took ahead beyond the immediate future and anticipate changes, modifications, additions, deletions, etc., which may be forced upon his organisation as a result of expansion, obsolescence, diversification or any other reasons. Having anticipated these, provision should be made to accommodate such changes.

While working on a factory layout plan, a very important aspect to be kept in mind is the fact that the movement of materials from one stage of manufacture to the next should be minimal. For this, movement has to be streamlined. If this is not initiated, it will result in the wastage of human effort and time, both of which have a telling effect on the efficiency of an organisation and the cost of production. In industrial life, the economic and efficient usage of all the factors of production is the key to profitability and the ability to compete in the market.

## 18.4 Selection of Plant and Equipment:

The adequacy and suitability of the plant and machinery is examined in the context of the selected process, basis of selection, reasonability of cost, reputation and ability of machinery suppliers, reliability of performance and proper balancing in various sections so that no section has under or over capacity. The arrangements/agreements with the machinery suppliers are examined with special reference to the price quoted, guarantees of workman-ship and performance, provisions for spare parts and efficient after-sales service.

The plant and machinery might have been selected by the applicant on the advice of its collaborates, turn-key contractors or technical advisers. Similarly, the suppliers of the plant and machinery might have been suggested by the collaborators or consultants or selected through competitive bids. Full details, including the degree of sophistication in the selection of machinery and equipment as also the criteria in the selection of suppliers are obtained by the appraisers and examined. In the case of machinery and equipment proposed to be imported, unless the same is against a “tied-credit” it is ensured that the practice of calling competitive tenders is followed. Further, the institutions also ensure that the promoters are not in any way interested directly or indirectly with the parties supplying machinery to the project.

Project based on second hand plant and machinery are generally not encouraged by the financial institutions. The borrower should not make any commitments or incur capital expenditure without specific selection of finance assistance. Proposals involving acquisition of second hand machinery for setting up new units where cost capacity exceeds 25 percent of the total cost/capacity of machinery/proposed scheme are not normally entertained. In respect of schemes for expansion

and diversification, this limit would, however, depend upon the actual need and other relevant factors. Likewise, the use of second hand plant and equipment is specifically not encouraged for the production of sophisticated items or where the dimensional accuracy of the product is of paramount importance. However, the use of second-hand machinery and equipment is considered as an exception in those cases where the delivery period of new machinery is unduly long and the cost of new machinery is likely to be far in excess of second hand machinery thereby affecting the profitability and economics of the project.

In respect of machinery supply agreement for second hand plant and equipment, it ensured that the agreement provides for the following:

* Responsibility should be undertaken by the suppliers for doing or getting done the required reconditioning/renovation and processing and a warranty/guarantee thereof.
* Undertaking that each and every equipment to be supplied with or without reconditioning will be covered by a guarantee/warranty for free replacement of parts, components, materials, or spares, if proved defective in design, materials workmanship, reconditioning, fatigue, etc., after erection at the factory site during such of the initial years of operation as may be mutually agreed upon.
* Provisions for performance of guarantee to the rated capacity.
* Provision for providing adequate technical personnel for control and supervision during erection of the equipment with a view to ensuring proper performance and commissioning as visualised.
* Provision for penalty, damages, indemnity, etc., if equipment is not found satisfactory.

## 18.5 Plant Layout and Factory Building:

The subject of plant layout not only covers the initial layout of machines and other facilities but encompasses improvement in, or revisions of the existing layout in the light of subsequent developments in the methods of production. In other words, a plant layout is “a floor plan for determining and arranging the desired machinery and equipment of a plant, whether established or contemplated, in the one best place to permit the quickest flow of material at the lowest cost and with the least amount of handling in processing the product from the receipt of the raw materials to the shipment of the finished products”.

A more simple, clear and comprehensive definition is given by knowels and Thomson. They say that a plant layout involves:

(i) Planning and arranging manufacturing machinery, equipment and services for the first time in completely new plants;

(ii) The improvements in layouts already in use in order to introduce new methods and improvements in manufacturing procedures.

During the course of appraisal, considerable emphasis is laid on a proper and scientific plant layout as once the plant and equipment are erected, it becomes difficult and costly to change at a later stage. The following aspects are kept in view while evaluating the plant layout:

* Production technology and product - mix;
* Efficient, economic and uninterrupted flow of human and materials resources;

* Proper space for maintenance
* Future expansion/diversification of the project;
* Safety precautions particularly when explosive or bulky material is required to be handled;
* Proper lighting and ventilation;
* Proper layout of utilities and services and provisions for effluent disposal, where necessary;
* Effective supervision of work; and
* Proper storage and stacking space, where required.

The building designs are to be kept in conformity with the plant layout and construction of the building is to be carried out by experienced architects and contractors unconnected with the promoters/management group. In case where process requirement envisages special conditions like air-conditioning, air cooling, dust control, humidity control, etc., it is ensured that due care be taken in the design of the buildings.

## 18.6 Importance of Layout:

The importance of a layout lies in enhancing manufacturing function and supervision and control. Some of the advantages are:

(1). Economics in handling,

(2). Effective use of available area,

(3). Minimisation of production delays,

(4). Improved quality control,

(5). Minimum Equipment Investment,

(6). Avoidance of bottlenecks,

(7). Better production control,

(8). Better supervision,

(9). Improved utilisation of labour,

(10). Improved employee morale,

(11). Maximisation of production,

(12). Avoidance of unnecessary and costly changes,

(13). Increased revenues and profits, and

(14). Success of the enterprise.

## 18.7 Consideration in Factory Layout:

While choosing the layout for a factory, the following factors should be taken into consideration.

**(1). Nature of Product:** The type of product to be manufactured affects plant layout in several ways. Small and light products can be moved easily to the machines whereas for heavy and bulky products the machines may have to be moved. Large and heavy equipment requires assembly bays. One or a few standardised products can better be produced through product layout while process layout is more useful for producing a large variety of non-standardised products. Quality and fragility of the product also influence the layout.

**(2). Volume of Production:** Normally high volume manufacturing requires product layout and low volume job production needs process layout.

**(3). Materials Handling:** The pattern of layout depends to a great extent on the nature of materials and materials handling plan. It is necessary to provide adequate space for storage and adequate aisles for free movement of materials.

**(4). Type of Equipment :** Specifications of machinery and equipment are a prime consideration in factory layout. General purpose machines need a different layout General purpose machines need a different layout than specialised machines. Adequate space must be provided for the location and movement of all machines and equipment.

**(5). Factory Building:** Ideally, a building should be built to suit the best factory layout. But in practice the layout might have to be modified to fit a given building. The covered area, the number of storeys, elevators and stairs, parking and storage area all affect the layout. The plant site should also be considered in choosing the layout for a factory.

**(6). System of Manufacture:** The type of manufacturing process is single most important determinant of factory layout. Continuous manufacturing system requires a different sequence of machines than intermittent manufacturing.

**(7). Lighting and Ventilation:** In laying out a factory adequate provision must be made for lighting, ventilation and heating. These are essential for the health, comfort and productivity of workers.

**(8). Service Facilities:** The layout of a factory must include proper service facilities required for the comfort and welfare of workers. These include canteen, lockers, drinking water, toilets, first aid, fire escapes, etc.

## 18.8 Technical and Engineering Services:

One of the important aspects in the appraisal of projects is the institutional evaluation of the technical and engineering services. This becomes all the more important in large-size projects.

Technical and engineering services comprise preparation of detailed drawings/designs of the plant and equipment, arrangements for process know-how, engineering know-how and consultancy, design and layout of utilities and services like power, water, steam, air supply, off-site facilities, etc. These also include the services for preparing tender documents for complete civil works, selection and procurement of equipment and their erection.

All the above services are sometimes entrusted to process and engineering consultants and in some cases, part of the work including coordination at various levels is taken care of by the project management team of the concern. The process consultants generally supply the essential know-how and basic engineering requirements. The engineering consultants provide detailed

information on of the various facilities involved in the project, including design parameters, preparation of specifications, inviting quotations, and their analysis, recommendation for purchases and award of contracts inspection of the equipment purchased, arrangements for shipping and handling of equipment, supervision during construction/installation/erection of the equipment, assistance/supervision during commissioning etc. consultants are often involved in the preparation of detailed project reports and in the furnishing of the information/clarification required by the institutions during appraisal. The background of the consultants, their scale of operations, experience on other projects and plants based on similar technology is looked into in depth. The possibility of infringement of existing patents is also examined and an endeavour is made to obtain necessary indemnity from the consultants. Another important aspect examined while evaluating the adequacy of consultant is the provision for technical training of the personnel in the plant of the collaborators. It is also necessary to make arrangements for in-plant training by the representatives of the consultants, deputation of consultant's personnel for supervision during erection and commissioning, administration of the performance guarantees, trail-runs and initial operation of the plant.

## 18.9 Summary:

Factory design and layout of the factory are significant aspects of the factory organisations. They have direct relationship with the process of manufacturing, productively and value of the product. It also influences the operational costs of the enterprise. It also boosts the morale of workers an ensures maximum supervision.

The success of an enterprise to a greater extent depends upon the factory design and layout. The location, layout, amenities will influence productivity and facilitate better management. More importantly, the efficiently of the production flow depends largely on how well the various machines, production, facilities and employee amenities are located in a plant. In a properly laid-out plant, the movement of materials, from the raw material stage to the end product stage, is smooth and rapid; the movement is generally in a forward direction; the materials do not criss-cross, or go backward and forward further operations. Moreover, production bottlenecks and delays are few, materials handling costs are reduced.

## 18.10 Self-Assessment Questions:

1. Define factory design and Layout? Explain its importance?
2. Define factory Layout? Explain considerations in factory Layout?
3. The success of an enterprise to a greater. Extent depends upon the factory design and layout, Explain.

## 18.11 Reference Books:

1. S.S. Khanka, *Entrepreneurial Development,* S. Chand & Company Ltd., New Delhi - 1999.
2. Vasant Desai, *Project Management,* Himalaya Publishing House, New Delhi, 2001.

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**Lesson - 19**

# PROJECT CLASSIFICATION AND IDENTIFICATION

## 19.0 Objectives:

After completion of this lesson, we should be able to understand:

* concept of Project - Definitions
* characteristics of a Project
* classification of Projects
* project identification
* constraints in project identification
* project objectives
* techniques of project identification

## Structure:



## 19.1 Introduction:

Once the entrepreneur becomes aware of the concept and role of new venture, he could makeup his mind and proceed toward taking concrete actions to establish the unit. The entrepreneur draws a plan of action to suit his requirement to setup a new project. In the precise sense, a project can be considered to be any series of activities and tasks that have a specific objective to be completed within certain specifications. It pre supposes commitment to tasks to be performed with well defined objectives, schedules and budgets. Thus, the project is a basic

foundation of an enterprise and is also very crucial to the entrepreneur. Invariably, an entrepreneur cannot succeed in his venture/and or enterprise without a project. Therefore, the project becomes a foundation stone of a venture.

## 19.2 Definitions of Project:

(I). According to **Encyclopedia of Management**, a project is an organised unit dedicated to the attainment of a goal, the successful completion of a development project on time, within budget, in conformance with pre-determined programme specifications.

(II). **Webster's** new 20th Century Dictionary, viewed a project as a scheme, design, a proposal of something intended or devised.

(III). According to **Harrison**, a project management scholar, a project can be defined as a non-routine, non-repetitive, one off under-taking normally with discrete time, financial and technical performance goals.

On the basis of above definitions, project can be defined as a scientifically evolved work plan devised to achieve a specific objective within a specific period of time.

## 19.3 Characteristics of a Project:

A project has or consists of a variety of characteristics. The concept of wholeness prevails in the in the project despite diversities of work. The whole work has to be completed in one shot-one for all. It is not a process can perpetuate. The special features of a project are as follows:

**(a) Objectives:** A project has a fixed set of objectives and once these objectives are adhered, the project ceases to exist.

**(b) Life Span:** A project cannot have a perpetual succession. It has to come to an end once the desired work is completed.

**(c) Single Entity:** A project is considered as a single entity and it is entrusted to one responsible centre or authority.

**(d) Team Work:** Successful completion of project work requires the systematic, discipline team work.

**(e) Life Cycle:** A project is initiated to achieve a mission and it is completed when the mission in fulfilled.

**(f) Unity in Diversity:** A project is considered as unity in diversity. It is because it is a complex set of technology, equipment, machinery, materials men, work culture, ethics etc. But all these aspects are inter-related and allow the project to complete smoothly.

## 19.4 Classification of Projects:

Projects have been classified by project experts and managers in different ways. According to **Little** and **Mirrlees**, the projects can be classified into two categories i.e., quantifiable projects and non-quantifiable projects. We also find the project classification of Planning Commission of India, All India Financial Institutions etc. which is based on sectorial criteria and techno-economic criteria.

## 19.5 Project Identification:

Identification of a suitable project is a very crucial decision as the ultimate success of the venture greatly depends upon the selection of the right type of product. There are no set of rules and regulations for identification of the projects. It is observed that most of the prospective entrepreneurs follow the herd mentality in identification and selection of a project. If in a particular area, some people have ventured into a specific field or line of manufacture, others also follow suit. This is not a healthy attitude since one's success in a particular project does not necessarily guarantee success for others. Therefore, there is a need to understand the concept of project identification by the prospective entrepreneurs.

**Definition :** Project identification is concerned with the collection, compilation and analysis of economic data for the eventual purpose of location possible opportunities for investment. **Peter Drucker** has located three opportunities viz., additive, complementary and break through. Additive opportunities enable the decision maker to effectively utilise the existing resources without affecting the character of the business. Complementary opportunities refer to the introduction of new ideas which lead to change in the existing structure. Break -through opportunities involve fundamental changes in both the structure and character of business.

### Process of Project Identification:

The process of project identification and selection is not an easy task. It involves the assessment and evaluation of a number of characteristics of project which are discussed in the following manner:

**(a) Inputs - Outputs:** Infect, while identifying a suitable project, it is necessary to make use of the SWOT analysis (strengths, weaknesses, opportunities and threats) in respect of the resources available at the disposal of the entrepreneur. The study of output characteristics helps in determining as to what the project will generate in the form of goods and services, employment, revenue etc. The quantity and quality of all these outputs, and the nature and magnitude of each these inputs must be determined in order to make the inputs characteristics explicit.

**(b) Social Costs and Benefits:** It is also necessary to study the impact of the project on the society. The proposed study of project work inevitably affects the current equilibriums of demand and supply in the economy.

**(c) Location:** It is necessary to take into account the tentative choice of the location where the project proposed is to be setup.

**(d) Counselling Services:** For selecting a project different sources such as government agencies i.e., Entrepreneurship Development Centres (EDC), Small Industries Service Institute (SISI), Technical Consultancy Organisation (TCO) etc.

It may be mentioned that for selection of a project, the entrepreneurs may consult any number of persons/organisations, but ultimate decision depends on the analysing strengths and weaknesses of the proposed project.

## 19.6 Constraints in Project Identification:

The venture ideas of the entrepreneurs have to be screened and evaluated in a preliminary fashion on the basis of internal and external constraints before the project is put to additional tests of pre-feasibility.

**(A). Internal Constraints:** Internal Constraints arise on account of the limitations of the management system. The internal constraints are:

(1). More reliance on outside consultants

(2). Limited budget and time schedule

(3). Formulation of unrealistic objectives

(4). Non-availability of resources.

**(B). External Constraints:** The external constraints also restricts the entrepreneurs who venture into project implementation. The important external constraints are:

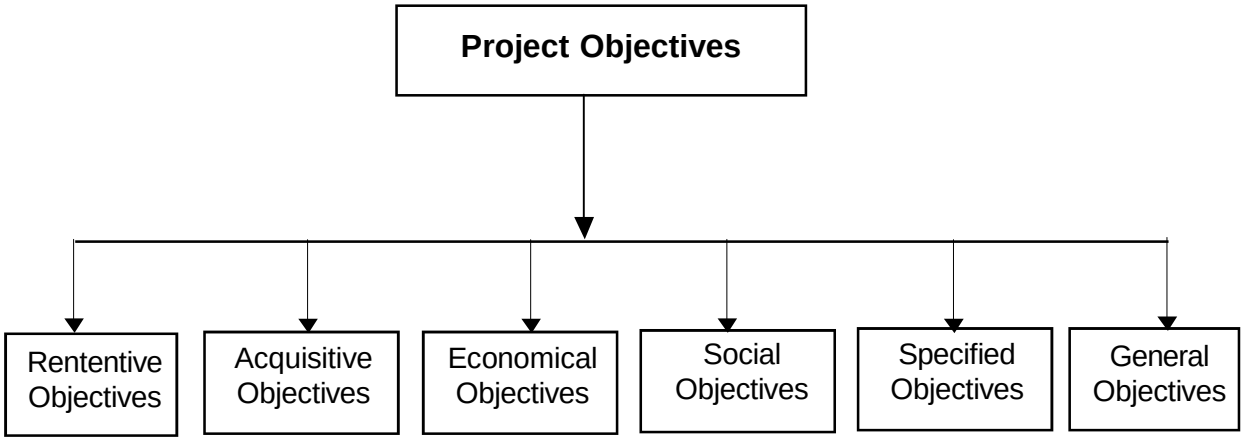
(1). Non-conformity to the socio-economic objectives

(2). Government policies and regulations

(3). Cumber some procedure of finances.

## 19.7 Classification of Project Objectives:

Project objectives may be setup by the entrepreneurs in different ways which are discussed in the following chart:




**(a) Rententive Objectives:** Rententive objectives are those objectives which are concerned with the retention and preservation of resources like money, time, energy, equipment and skills.

**(b) Acquisitive Objectives:** Acquisite objectives are those objectives which involve acquisition of resource or attaining a position or status than an enterprise or its managers could not attain so far.

**(c) Economical Objectives:** These objectives are those objectives which are primarily concerned with financial costs and benefits of the project.

**(d) Social Objectives:** These objectives are service oriented but not profit oriented. The social project objectives are inconformity with social costs benefit aspects of individual projects.

**(e) Specific Objectives:** Specific Objectives refer to those objectives of the project which it aims to achieve the specific results and within the specific time limit.

**(f) General Objectives:** These objectives refer to those objectives of the project which are not specific in nature and intent to achieve a number of other goals. Normally, time limit may be prescribed for attainment of these general objectives.

## 19.8 Techniques of Project Identification:

Before the actual implementation of any project, we need to plan for the project and a detailed information about the project is being taken up. In order to select a suitable project, there is a need to identify a few projects suited to the background and resources of the entrepreneur. For this purpose, the entrepreneurs primafacie will have to assess the market potential of items. This is possible only when entrepreneurs get a detailed information about the proposed project.

The information needs of an entrepreneurs can be divided into three broad categories viz., general, technical and support agency. Date on these areas can be collected through Desk research and Technic-Economic Survey which are the two important techniques to provide the useful information for the project identification.

**(A). Desk Research:** It implies the collection and use of information from published sources like Journals, magzines, reports etc., various publications such as 'Guidelines for 'Industries' published by the Ministry of Industries, Government of India', Hand Book of Industries Statistics' published by Ministry of Industries, Hand Book of Statistics' published by the Confederation of Indian Industry etc, may be useful to workout the gap between demand and supply. Institutions like Small Industries Service Institute (SISI), Technical Consultancy Organisations (TCO), Single Point Contact Organisations (SPCO), District Industrial Centres (DIC) etc., offer assistance in these areas.

Data and product identification may also be obtained from the sources viz., Industrial Potential Surveys, Lead Bank Survey Reports, new process/product development in research laboratories, literature on industries within the country and abroad, import, export statistics, profitability studies on selected industries and studies on price and shortage of certain commodities.

### (B). Techno Economic Survey:

Based on the market intelligence on several products, the entrepreneurs may identify the most suitable project keeping in mind their own background and resources available. After having identified the project and to make it a concrete proposal, the entrepreneur will have to collect a lot of information about various requirements of the project.

These surveys provide useful information which is explained in the following:

1. Infrastructure facilities, such as, land, power, water etc.
2. Incentives of State and Central Governments
3. Tax Concessions: Income Tax Exemptions under various sections such as IOB, for 100 percent export oriented units, Sec 32, 35AB, Sec 80 HHA, Sec 80 HHC etc. for tax concessions.
4. Legal Formalities: There is a necessity to know the various government formalities for the implementation of the projects.

Thus, the two techniques of project identification i.e., Desk Research and Techno Economic Survey are highly useful to the entrepreneurs in getting useful information for formulating the project idea into a concrete proposal.

## 19.10 Project Life Cycle:

Like human beings, projects also have a life cycle. The project life cycle consists of five phases which are explained in the following:

**(a) Conception Phase:** This is the first phase in the life of a project. It is primarily concerned with the germination of project idea.

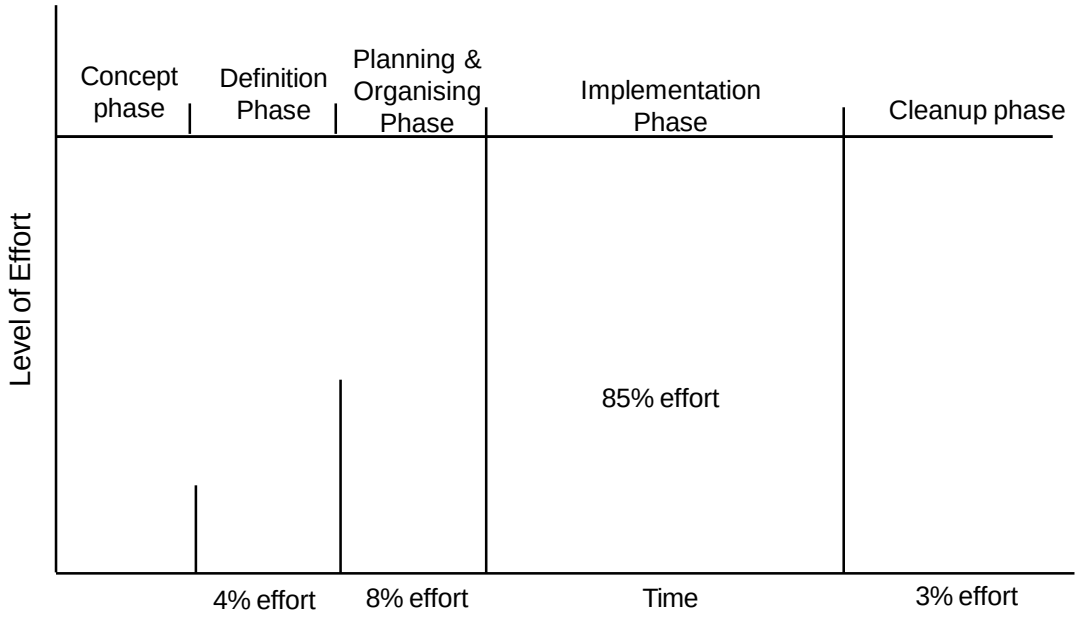
**(b) Definition Phase:** During this phase of project life, project idea is developed into an investment proposition. This phase produces a document describing the project with sufficient details covering all aspects necessary for the customer and/or financial institutions to makeup their minds on the project idea.

**(c) Planning and Organising Phase:** During this phase of project life cycle, the entrepreneurs prepare project execution plan and the organizations by and large deal with the areas such as project infrastructure and enabling services, system design and basic engineering package, organisation and manpower, schedules and budgets, licencing and government clearances, finance arrangements formulation of systems and procedures, identifying the project manager, general conditions for the purchase and contracts, site preparation and investigations, construction resources and materials. Thus, this phase consists mainly the development of infrastructure for the project.

**(d) Implementation Phase:** This is a period of hectie activity for the project. During implementation phase of project life cycle, the entrepreneur prepare specifications for equipment and machinery etc.

**(e) Project Clean-Up Phase:** This is a transition phase wherein the various agencies concerned with formulation and implementation of the projects physically hands over them for production.

The different phases of projects life cycle can also be shown with the help of the following curve.



The above project life cycle curve is an indicative of introduction, growth, maturity and decline stages of product life cycle as well as human life. The curve shows the different phases in sequence and percentage of effort involved in each of the phases. During concept and definition phases, the entrepreneurs puts only 4 percent of efforts, whereas planning and organisation phase requires 8 percent effort, cleanup phase requiring 3 percent effort and implementation phase requires 85 percent of efforts. As for as the volume of work is concerned, 80-85 percent of the project work is normally done in this phase only. Since, bulk of the project work is done during this phase, the entrepreneurs will always desire to complete this phase as early as possible i.e. within a short time. Thus, in the implementation phase of a project, the life cycle pattern is evident in detailed engineering, ordering, delivery construction or creation and start up. Hence, the detailed knowledge of this area, enables the project manager to ascertain the state of health of any project at any point of time.

## 19.10 Summary:

The study of the project idea is the starting point of the feasibility analysis. The study is undertaken to identify the logic of the project, the tasks which must be performed for achieving the enterprise objectives, and the inputs, outputs and process involved in each activity. The ultimate aim is to identify the characteristics of the project.

## 19.11 Self-Assessment Questions:

1. How do you classify the projects? Give a rational and acceptable criterion for classifying the projects.
2. Discuss Desk Research and Techno-Economic Survey as the techniques of project identification.
3. Explain the different techniques of project identification.
4. Discuss the different phases of project life cycle.

## 19.12 Reference Books:

1. S.S. Khanka; *Entrepreneurial Development;* S. Chand & Co., Ltd.,, New Delhi-2005.
2. A. Shankaraiah & Others; *Entrepreneurship Development;* Kalyani Publishers - New Delhi, 2002
3. Vasant Desai; *Dynamics of Enterpreneurial Development and Management;* Himalaya Publishing House, New Delhi, 1992.

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## Lesson - 20

# PROJECT REPORT

## 20.0 Objectives:

After completion of this lesson, we should be able to understand:

* meaning and significance of project report
* contents and formulation of project report
* project implementation
* specimen of project report

## Structure:



## 20.1 Introduction:

We know from available literature on development of entrepreneurship what do entrepreneurs do but relatively little about how do they do it. We are making a beginning from this

chapter onwards to make you know how do entrepreneurs make their enterprises as running concern. We also know when intelligent people start on a long trip, they always make plans. They decide, for example, where they are going and how they plan to get there. Generally longer the trip, more they plan. Small entrepreneurs also need to draw the business plans because right from the conception of a business idea upto production involves numerous decisions to be taken. Formulation of project report/business plan is one of the first corner stones to be laid down in setting up an enterprise. It is devoted to make what is and how to make a right project or the business plan as it is sometimes called.

## 20.2 Meaning of Project Report:

**Webster New 20th Century Dictionary,** defines a project as a scheme, design, a proposal of something intended or devised. In simple words, project report or business plan is a written statement of what an entrepreneur hopes to achieve in his business and how is he going to achieve it. In otherwords, project report serves like a kind of big road map to reach the destination determined by the entrepreneur. Thus, a project report can best be defined as a well evolved course of action devised to achieve the specified objective within a specified period of time. So, it is an operating document.

## 20.3 Significance of Project Report:

An objective without a plan is a dream. The preparation of a project report is of great significance for an entrepreneur. The project report serves the two essential functions:

First and most important, the project report is like a road map. It describes the direction the enterprise is going in, what its goals are, where it wants to be, and how it is going to get there. It also enables an entrepreneur to know that he is proceeding in the right direction. Some hold the view that without well spelled out goals and operational methods/tactics, most business flounder on the rocks of hard times.

The second function of the project report is to attract lenders and investors. Although, it is not mandatory for the small enterprises to prepare project reports, yet it is useful and beneficial for them to prepare the project reports for various reasons. The preparation of project report is beneficial for those small enterprises which apply for financial assistance from the financial institutions make appraisal if the enterprise requires financial assistance or not. If yes, how much. Similarly, other organisations which provide various assistance such as work shed, raw material, seed/margin money etc. are equally interested in knowing the economic soundness of the proposal. In most cases, the quality of the firm's project report weights heavily in the decision to lend or invest funds.

## 20.4 Contents of a Project Report:

Having gone through the significance of project Report, it is now clear that there is no substitute for a well-prepared business plan or project report and also there are no shortcuts in preparing it. The more concrete and complete the business plan, the more likely it is to earn the respect of outsiders and their support in making and running an enterprise. Therefore, the project report should contain the following contents:

**(1). General Information:** Information on product profile and product details.

**(2). Promoter:** His/her educational qualification, work experience, project related experience.

**(3). Location:** Exact location of the project, lease or free hold, locational advantages.

**(4). Land and Building:** Land area, construction area, type of construction, cost of construction, detailed plan and estimate along with plant layout.

**(5). Plant and Machinery:** Details of machinery required, capacity, suppliers, cost, various alternatives available, cost of miscellaneous assets.

**(6). Production Process:** Description of production process, process chart, technical know how, technology alternative available, production programme.

**(7). Utilities:** Water, power, steam, compressed air requirements, cost estimates, sources of utilities.

**(8). Transport and Communication:** Mode, possibility of getting, costs.

**(9). Raw Material:** List of raw material required by quality and quantity, sources of procurement, cost of raw material, tie-up arrangements, if any, for procurement of raw material, alternative raw material, if any.

**(10). Man Power:** Man Power requirement by skilled and semi-skilled, sources of manpower supply, cost of procumbent, requirement for training and its cost.

**(11). Products:** Product mix, estimated sales, distribution channels, competitions and their capacities, product standard, input-output ratio, product substitute.

**(12). Market :** End-users of product, distribution of market as local, national, international, trade practices, sales promotion devices, proposed market research.

**(13). Requirement of Working Capital:** Working capital required, sources of working capital, need for collateral security, nature and extent of credit facilities offered and available.

**(14). Requirement of Funds:** Break-up of project cost in terms of costs of land, building, machinery, miscellaneous assets, preliminary expenses, contingencies and margin money for working capital, arrangements for meeting the cost of setting up of the project.

**(15).** Cost of production and profitability of first ten years.

**(16).** Break-Even Analysis

**(17).** Schedule of Implementation

## 20.5 Formulation of a Project Report:

Normally, small-scale enterprises do not include sophisticated technique which is used for preparing project reports of large-scale enterprises. Within the small-scale enterprises too, all the information may not be homogeneous for all units. In fact, what and how much information will be given in the project report depends upon the size of the unit as well as nature of the production. A general set of information given in any project report is listed by **Vinod Gupta** in his study on "Formulation of a Project Report".

Project formulation divides the process of project development into eight distinct and sequential stages. These stages are:

(1). General Information

(2). Project Description

(3). Market Potential

(4). Capital Costs and Sources of Finance

(5). Assessment of Working Capital Requirements

(6). Other Financial Aspects

(7). Economic and Social Variables

(8). Project Implementation.

The nature of information to be collected under each one of these stages has been given below:

### 20.5.1 General information:

The information of general nature given in the project report include the following:

**Bio-data of Promoter :** Name and address of entrepreneur; the qualifications, experience and other capabilities of the entrepreneur; if these are partners, state these characteristics of all the partners individually.

**Industry Profile:** A reference of analysis of industry to which the project belongs, e.g., past performance; present status, its organisation, its problems etc.

**Constitution and Organisation:** The constitution and organisational structure of the enterprise; in case of partnership firm, its registration with the Registrar of firms; application for getting Registration Certificate from the Directorate of Industries/District Industry Centre.

**Product Details:** Product utility, product range; Product design; advantages to be offered by the product over its substitutes, if any.

### 20.5.2 Project Description:

A brief description of the project covering the following aspects is given in the project report.

**Site:** Location of enterprise; owned or lease hold land; industrial area; No Objection Certificate from the Municipal Authorities if the enterprise location falls in the residential area.

**Physical Infrastructure:** Availability of the following items of infrastructure should be mentioned in the project report:

**(i). Raw Material:** Requirement of raw material, whether inland or imported, sources of raw material supply.

**(ii). Skilled Labour:** Availability of skilled labour in the area, arrangements for training labourers in various skills.

**Utilities:** These include:

**(i). Power :** Requirement for power, load sanctioned, availability of power.

**(ii). Fuel :** Requirement for fuel items such as coal, coke, oil or gas, state of their availability.

**(iii). Water :** The sources and quality of water should be clearly stated in the project report.

**Pollution Control:** The aspects like scope of dumps, sewage system and sewage treatment plant should be clearly stated in case of industries producing emissions.

**Communication System :** Availability of communication facilities, e.g., telephone, telex etc. should be stated in the project report.

**Transport Facilities:** Requirements for transport, mode of transport, potential means of transport, distances to be covered, bottlenecks etc., should be stated in the business plan.

**Other Common Facilities :** Availability of common facilities like machine shops, welding shops and electrical repair shops etc. should be stated in the report.

**Production Process:** A mention should be made for process involved in production and period of conversion from raw material into finished goods.

**Machinery and Equipment:** A complete list of items of machinery and equipments required indicating their size, type, cost and sources of their supply should be enclosed with the project report.

**Capacity of the Plant:** The installed licensed capacity of the plant along with the shifts should also be mentioned in the project report.

**Technology Selected:** The selection of technology, arrangements made for acquiring it should be mentioned in the business plan.

**Research and Development:** A mention should be made in the project report regarding proposed research and development activities to be undertaken in future.

### 20.5.3 Market Potential:

While preparing a project report, the following aspects relating to market potential of the product should be stated in the report :

**(i) Demand and Supply Position:** State the total expected demand for the product and present supply position. This should also be mentioned how much of the gap will be filled up by the proposed unit.

**(ii) Expected Price:** An expected price of the product to be realised should be mentioned in the project report.

**Marketing Strategy:** Arrangements made for selling the product should be clearly stated in the project report.

**After-Sales Service:** Depending upon the nature of the product, provisions made for after-sales service should normally be stated in the project report.

**Transportation:** Requirement for transporation means indicating whether public transport or entrepreneur's own transport should be mentioned in the project report.

### 20.5.4 Capital Costs and Sources of Finance:

An estimation of the various components of capital items like land and buildings, plant and machinery, installation costs, preliminary expenses, margin for working capital should be given in the project report. The present probable sources of finance should also be stated in the project report. The sources should indicate the owner's fund together with funds raised from financial institutions and banks.

### 20.5.5 Assessment of Working Capital Requirements:

The requirement for working capital and its sources of supply should be carefully and clearly mentioned in the project report. It is always better to prepare working capital requirements in the prescribed formats designed by limits of requirement. It will minimise objections from the banker's side.

### 20.5.6 Other Financial Aspects:

In order to adjudge the profitability of the project to be setup, a projected Profit and Loss Account indicating likely sales revenue, cost of production, allied cost and profit should be prepared. A projected Balance Sheet and Cash Flow statement should also be prepared to indicate the financial position and requirements at various stages of the project.

In addition to above, the Break-Even Analysis should also be presented in the project report. Break-Even Point is the level of production/sales where the industrial enterprise shall earn neither profit nor incur loss. In fact, it will just break even. Break-Even Level indicates the gestation period and the likely moratorium required for repayment of loans.

Break-Even Point (BEP) is calculated as follows:

$$BEP = \frac{F}{S - V} X 100$$ where,

F = Fixed Cost

S = Sales Projected

V = Variable Costs

Thus, the break-even point so calculated will indicate at what percentage of sales, the enterprise will break even.

### 20.5.7 Economic and Social Variables:

In the view of the social responsibility of business, the abatement costs, i.e., the costs for controlling the environmental damage should be stated in the project. Arrangement made for treating the effluents and emissions should also be mentioned in the report.

Besides, the socio-economic benefits expected to accrue from the project should also be stated in the report itself. Following are the examples of socio-economic benefits :

(i). Employment Generation

(ii). Import Substitution

(iii). Ancillarisation

(iv). Exports

(v). Local Resource Utilization

(vi). Development of the Area.

## 20.6 Project Implementation:

Last but no means the least, every entrepreneur should draw an implementation scheme or a time-table for his project to ensure the timely completion of all activities involved in setting up an enterprise. Timely implementation is important because if there is a delay, it causes, among other things, a project cost overrun. In India, delays in project implementation has become a common feature. Delay in project implementation jeopardises the financial viability of the project, on the one hand, and props up the entrepreneur to drop the idea to set up an enterprise, on the other. Hence, there is a need to draw up an implementation schedule for the project and then to adhere to it.

Following is a simplified implementation schedule for a small project.

**An Illustrative Implementation Schedule**

| Tasks \ Months | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Formulation of Project Report | | | | | | | | | | | | | | |
| 2 | Application for Term - Loan | | | | | | | | | | | | | | |
| 3 | Term-Loan Sanction | | | | | | | | | | | | | | |
| 4 | Possession of Land | | | | | | | | | | | | | | |
| 5 | Construction of Building | | | | | | | | | | | | | | |
| 6 | Getting Power and Water | | | | | | | | | | | | | | |
| 7 | Placing order for Machinery | | | | | | | | | | | | | | |
| 8 | Receipt and Installation of Machinery | | | | | | | | | | | | | | |
| 9 | Man Power Recruitment | | | | | | | | | | | | | | |
| 10 | Trial Production | | | | | | | | | | | | | | |
| 11 | Commencement of Commercial Production | | | | | | | | | | | | | | |

The above schedule can be brokenup into scores of specific tasks involved in setting up the enterprise. Project Evaluation and Review Technique (PERT) and Critical Path Method (CPM) can also be used to get better insights into all activities related to implementation of the project.

### Planning Commission's Guidelines for Formulating A Project Report:

In order to process investment proposals and arrive at investment decisions, the Planning Commission of India has also issued some guidelines for preparing/formulating realistic industrial projects. So far as feasibility report is concerned, it lies in between the project formulating stage and the appraisal and sanction stage. The project formulation stage involves the identification of investment options by the enterprise and in consultation with the Administrative Ministry, the Planning Commission and other concerned authorities.

Realising the usefulness of these guidelines, we now are presenting these guidelines in a summarised manner.

### 20.6.1 General Information:

The feasibility report should include an analysis of the industry to which the project belongs. It should deal with the past performance of the industry. The description of the type of industry should also be given, i.e., the priority of the industry, increase in production, role of the public sector, allocation of investment of funds, choice of technique, etc. This should also contain information about the enterprise submitting the feasibility report.

### 20.6.2 Preliminary Analysis of Alternatives:

This should contain present data on the gap between demand and supply for the outputs which are to be produced, data on the capacity that would be available from the projects that are in production or underimplementation at the time the report is prepared, a complete list of all existing plants in the industry, giving their capacity and level of production actually attained, a list of all projects for which letters of intents/licenses have been issued and a list of proposed projects. All options that are technically feasible should be considered at this preliminary stage. The location of the project as well as its implications should also be looked into. An account of the foreign exchange requirement should also be taken. The profitability of different options should also be given. The rate of return on investment should be calculated and presented in the report. Alternative cost calculations vis-a-vis return should be presented.

### 20.6.3 Project Description:

The feasibility should provide a brief description of the technology/process chosen for the project. Information relevant to determining optimality of the locations chosen should also be included. To assist in the assessment of the environmental effects of a project, every feasibility report must present the information on specific points, i.e,, population, water, air, land, flora and fauna, effects arising out of project's pollution, other environmental discretions etc. The report should contain a list of the operational requirements of the plant, requirements of water and power, requirements of personnel, organisational structure envisaged, transport costs, activity-wise phasing of constrution and factors affecting it.

### 20.6.4 Marketing Plan:

It should contain the following items:

(i). Data on the marketing plan.

(ii). Demand and prospective supply in each of the areas to be served.

(iii). The method and data used for main estimates of domestic supply and selection of the market areas should be presented.

(iv). Estimates of the degree of price sensitivity should be presented.

### 20.6.5 Capital Requirements and Costs:

The estimates should be reasonably complete and properly estimated. Information on all items of costs should be carefully collected and presented.

### 20.6.6 Operating Requirements and Costs:

Operating costs are essentially those costs which are incurred after the commencement of commercial production. Information about all items of operating cost should be collected; Operating costs relate to the cost of raw materials and intermediates, fuel, utilities, labour, repair and maintenance, selling expenses and other expenses.

### 20.6.7 Financial Analysis:

The purpose of this analysis is to present some measures to assess the financial viability of the project. A proforma Balance Sheet for the project data should be presented. Depreciation should be allowed for on the basis of specified by the Bureau of Public Enterprises. Foreign exchange requirements should be cleared by the Department of Economic Affairs. The feasibility report should take into account income-tax rebates for priority industries, incentives for backward areas, accelerated depreciation, etc. The sensitivity of the rate of return of change in the level and pattern of product prices.

### 20.6.8 Economic Analysis:

Social profitability analysis needs some adjustment in the data relating to the costs and returns to the enterprise. One important type of investment involves a correction in input and cost, to reflect the true value of foreign exchange, labour and capital. The enterprise should try to assess the impact of its operations on foreign trade. Indirect costs and benefits should also be included in the report. If they cannot be quantified, they should be analysed and their importance emphasised.

### 20.6.9 Miscellaneous Aspects:

The preceding three areas are deemed appropriate to almost every new small enterprise. Not with standing, depending upon the size of the operation and peculiarities of a particular project, other items may be considered important to be applied out in the project report. To mention, probable use of minicomputers or other electronic data processing services, cash flow statements, method of accounting etc., may be of great use in some small enterprises.

## 20.7 Specimen of a Project Report:

The following Illustrative Project Report of a manufacturing unit, it will help to prepare a Project Report or Business Plan.

Project Profile for Manufacturing Unit.....

(A). Product Description

(B). Production and General Evaluation of Prospects:

**(C). Market Aspects**

1. Users:
2. Sales Channels & Methods:
3. Geographical Extent of Market:

4. Competitive Situation:

(a) Domestic Market

(b) Export Market

5. Market needed for plant described:

**(D). Production Requirements** **Rs.**

Salient Features

1. Annual Capacity (one/two/three-shift operation)

2. Capital Requirements

Land & Buildings on rent (Mention value, if owned)

Equipment, furniture and fittings working capital

3. Total capital which the entrepreneur would need for the whole project provided the uses agencies planned by the Govt. for financial accommodation as discussed in the book

(i). Own

(ii). Borrowings

4. Expected net profits per annum

**(E). Capital Requirements**

Fixed Assets & Working Capital

(a) Land (..sq. metres) and Building (...sq. m) on rent at Rs..... per annum Rs.

(b) Equipments:

(i). Production Equipment (List down in an appendix, giving values, etc., of each machine separately)

(ii). Other tools & Equipment

(iii). Furniture and Fittings

(c) Working Capital

(This would be calculated keeping in view the periods in which capital on an average in various forms, i.e. manufactured goods, semi-manufactured goods, raw

material etc., would remain locked up. Often you may calculate it at 3 months requirement level, unless the situation (line of industry) warrants otherwise)

Total

II. Raw Material & Allied Supplies (Annual)

| Description | Qty. | Rate Rs. | Annual Requirements |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. Power, Fuel & Water | | | |
| 6. Maintenance & Allied Supplies | | | |
| 7. Other Supplies | | | |

Total

III. Man Power (Annual)

| Description | No. of Rate (Rs.) Per Month | Annual Cost Rs. |
|---|---|---|
| Manager | | |
| Foreman | | |
| Supervisors | | |
| Skilled Workers | | |
| Semi-Skilled Workers | | |
| Unskilled Workers | | |
| Office Staff | | |
| Others | | |

Total

IV. Other Costs (Annual)

(a) Depreciation on equipment, furniture fittings..... annum

(b) Interest on Capital (fixed and working ..... per annum on average)

(c) Administrative Costs

(d) Sales cost (Including Sales, Commission, Advertisement, etc)

(e) Provision for discount, bad debts and miscellaneous contingencies

(f) Training Costs

F. Total Annual Costs, Sales Revenue and Net Profits

(a) Annual Costs

i. Rent for Land & Buildings

ii. Raw Materials & Allied Supplies

iii. Man Power

iv. Other costs

Total

(b) Annual Sales Revenue

(c) Expected Annual Net Profit (b-a) say

(d) % Profit on own capital

(e) % Profit on Total Annual Sales Turnover

(f) % On Total Investment

## 20.8 Summary:

The project report/business plan is a blue-print of all those activities that an entrepreneur proposes to engage in. It is not only a guidefrost for business activities, but also an essential exercise for developing cost and benefit estimates resources planning and feasibility testing of the proposed business activity. The project report is required for purposes of obtaining funds from the financial institutions and commercial banks. The project report for an entrepreneur is what a guide map is for a traveller. In order to complete the project within a stipulated period and cost, all activities involved in the project are scheduled in a sequential relationship called 'net working' or 'scheduling' of activities. The common errors made by the entreprenurs while formulating project reports/business plans are also highlighted.

## 20.9 Self-Assessment Questions:

1. Define a project report/business plan. Why is a Project Report prepared.
2. How is a project formulated? Give an overview.
3. What steps should be followed in the preparation of Project Report.
4. Prepare a Model Project Report with suitable figures.

## 20.10 Reference Books:

1. S.S. Khanka; *Entrepreneurship Development;* S. Chand & Company Ltd., New Delhi - 2005.
2. A. Shankaraiah; *Entrepreneurship Development,* Kalyani Publishers, New Delhi - 2004.
3. Vasant Desai; *Dynamics of Entrepreneurial Development and Management;* Himalaya Publishing House, New Delhi - 1992.

**- Dr. D.N.M. RAJU**