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Chapter-1:

BUSINESS PLAN - DEFIITION AND RELEVANCE

Chapter Objective:

- To give you an overall idea of Business Plan, its relevance to the entrepreneur, its contents as well as its context to the nurturance of the business.

Learning Outcome: On successful reading of this chapter, you will be able to appreciate the meaning and relevance of business plan and would have the curiosity to learn to prepare a business plan.

1. *What is a Business*? Any economic activity associated with production or distribution of goods and /or services to meet the needs of the society can be called a business. The definition of economics is that it deals with production and distribution of goods and services. By extending this definition we may say that any economic activity
    a. Of producing goods or services needed by the society and /or
    b. Reaching these goods/services to the members of the society can be defined as a business.

This definition enables us to treat any economic activity of producing goods as a business. Distributing the goods produced in a business to the consumers at their convenience can also be defined as a business.

Normally a business envisages [a] mobilizing of a set of resources, [b] combining /converting them into a good or service, [c] distributing them to the consumers wherever they are [d] and making a marginal surplus to sustain the business.

2. *What is a Business Plan?* A Business Plan is a comprehensive document that
    a. describes nature of the business in brief details,
    b. describes the customers of the outputs and the various marketing aspects
    c. identifies the various inputs required to make the business possible,
    d. explores the process/technology of converting the inputs into the desired outputs,
    e. estimates the overall capital cost of establishing the business, the costs of operation, the revenue and possible methods of funding the business
    f. evaluates the economics of operation AND establishes the overall feasibility of the business.

Each of these aspects will be dealt in detail in the Business Plan. In fact, it becomes the main reference source for the entrepreneurs as well as those connected with the business during and after implementation.

3. *Who needs the Business Plan and Why?* The primary user of the Business Plan is the entrepreneur.
    a. It is a document prepared through the study/research carried out by the entrepreneur in the planning phase and it would contain all relevant matters on the business. The entrepreneur would need to use this as a reference book through the implementation phase.
    b. The entrepreneur would need the Business Plan to convince other investors to commit investment into the business. He/ She would also need the Business Plan to convince banks/lenders to commit loans to the business.

c. Business Plan is also necessary while seeking statutory approvals/clearances from different agencies

d. Further it needs to be updated continuously because of the continuous changes happening in the dynamic environment. The Business Plan is a guide book on the overall feasibility of the business and it needs to be updated continuously with every change happening in the environment.

4. *Major Components of Business Plan*:

   a. Preliminary Assumption: It is presumed that the entrepreneur/s have done some preliminary work in identifying the business they intend to engage in. Otherwise the process of business/ project identification has to be gone through. B-Plan preparation would help them refine the specifics of the business more precisely.

   b. With this initial assumption, the major components of the B-Plan are listed as

      i. Market Related Aspects
      ii. Promoters, Management & Regulatory Aspects
      iii. Technology & Facility Related Aspects
      iv. Project Costing, Means of Finance & Financial Viability
      v. Implementation Plan
      vi. Scope of Future Growth

   c. A model outline of the contents of a B-Plan is given in annexure. This is intended to give the reader an overview of what can be expected in the following sections.

Annexure-1.1

Model outline of a Business Plan

- Executive Summary
- Brief Introduction to the proposed Business
  - Product/service
    - Description of product/services and its uses
    - Potential Buyers

        - Relative advantages and disadvantages vis-à-vis existing products/services
        - Expected size of business (scale of production and distribution)
    - Technology Related
        - Process know-how/Technology
        - Source of know-how, tie-up required, if any
        - Location and other features
- Market Related Aspects
    - Products/services proposed
    - Target Group/ Market Segment with description of characteristics.
    - Size of the market [Demand].
    - Supply position
    - Demand –Supply Gap.
    - Analysis of the competitive position [Industry analysis]
    - Distribution
    - Promotion
    - Pricing
    - Plan for Market launch.
- Promoters, Management & Regulatory Frame work
    - Main promoters and their professional background
        - Education,
        - Experience
        - Business exposure.
    - Resources of the promoters
        - Technical/ physical facilities/Commercial/financial/networking
        - Additional resources being brought in through tie-ups
    - Regulatory Framework
        - Constitution, status of incorporation
        - Regulatory clearances Required and the status thereof
    - People and Organization
        - Organization structure proposed
        - Key persons with skills

        - No. of persons at different levels
        - Plan of filling the positions; present status
- Technology and Facilities Related Aspects.
    - Description of the process/Technology
        - Source/s of technology and Equipment
        - List of land, building, utilities, and other facilities/Equipment envisaged
        - Plan for technology transfer/Training of operatives
    - Choice of location and facilities
    - Estimates of capital cost and operating costs
    - Details of inputs and utilities required, plans for procurement
    - Capacity and proposed capacity utilization
    - Proposed plan of execution; current status
- Project Costing, Means of Finance & Financial Viability.
    - Capital Cost of the Project
    - Proposed Means of Finance
    - Profitability Statements
    - Discussion on financial viability
        - Debt Service Coverage
        - Internal Rate of Return
        - Breakeven Analysis
        - Profitability of the project
        - Sensitivity Analysis
- Schedule of Implementation
    - Schedule of Planning for preliminary work
        - Market feasibility study
        - Regulatory clearances
        - Preparation of Business Plan
        - Funding and tie-ups
    - Schedule of Implementation for Physical facilities
    - Plan for market launch
    - Plan for commissioning

- Scope for Future Growth.
    - Discussion on the future market trends and prospects
    - Discussion on expansions and diversifications

SAQ-1.1

What is the relevance of a Business Plan? Is it necessary that an entrepreneur need to prepare a document called Business Plan? Would it not be sufficient that he is able to remember everything?

SAQ-1.2

The entrepreneur is not an expert in every field. Is it necessary that he has to prepare every aspect of the Business Plan by himself? Can he not outsource some aspects of the Business Plan?

Chapter-2

MARKET ASPECTS OF BUSINESS PLANNING

Chapter Objective: This Chapter is designed to inculcate among the participants

- The knowledge of the various market-factors that have significant impact on the business and its management.
- The skills to understand, analyze and explore the various market-factors and to build them positively for the success of the business at hand.

Learning Outcome: On successful study of this chapter, the participants will have

- Comprehensive knowledge of the various market-factors and their impact on the business
- The skills to analyze the market-factors and will be able to design the business and its elements to take advantage of the market-factors.

2.1. Understanding the Overall environment of Business: The environment has significant impact on the health and success of business. When the environment is favorable to business, business-entities do well with minimum efforts; while it is not conducive to business business-entities will have to put in extra efforts to sustain themselves. So, it is essential that we have a clear understanding the environment in terms of the aspects that are favorable and those that are not favorable to business. This would enable an entrepreneur to incorporate remedial measures while planning his business. A common template suggested by experts in business strategy envisages analysis of four factors namely Political, Economic, Social and Technological; this analysis is commonly known as PEST analysis. This type of analysis is highly essential in larger projects; with the enhanced limits of SMEs in India environmental analysis is significant for SMEs also. The PEST template with some of the salient sub-factors is shown in Table2.1. Strictly speaking, this template is more relevant for large projects in the context of exploring the country for investment; however the table is given here as a good reference point for the budding entrepreneurs to look for critical aspects of the environment while planning his/her business.

Table-2.1: PEST Analysis – Some of the salient sub-factors

Political	• Form of Govt: Democratic/Monarchy/Military/Other • Frequency and regularity of Elections • Elections based on Universal adult Franchise or by restricted electorate • Intensity of political rivalry; proneness to violence; smoothness of power transition from one govt to another. • Independence of the pillars of democracy: Legislature-Executive- Judiciary; Fourth estate: Freedom of Press • Rule of Law: General law and order conditions. Ease of access to judiciary. Independence of judiciary, ease of getting justice. • Proneness to military take-over
Economic	• GDP, growth-rate of GDP; per capita GDP; global ranking in terms of GDP and per capita GDP. • Balance of Payment; Balance of Trade; Forex reserves • Per cent of population considered poor [below $2 per day] • Life expectancy; Infant mortality

	• Rate of Inflation [based on consumer price index] • Banking infrastructure; development of capital markets; access to banking and other facilities; financial inclusion
Social	• Gender ratio; female participation in work • Literacy rate - overall, male, female; Access to mobile • Gross enrolment ratio to schools • Urbanization % • Internet and mobile penetration • Access to Healthcare – Insurance cover to the population; no. of hospital beds per million population; no, of doctors per million population • Public Distribution System: to the lower segment of population • Employment guarantee scheme; unemployment dole, etc. • Culture
Technical	• Educational infrastructure: No of universities per million population; no. technological universities/institutes per million population; total technical manpower pool in the country • Availability of skilled labour: skill profile of the population • Institutions for skill enhancement. No. of R&D institutions; pool of scientific manpower; investments in R&D; budgets for R&D • Infrastructure to promote innovations: Specialized institutions, budgetary allocations; manpower engaged in innovation promotions etc.
Source: The idea of PEST analysis is borrowed from Business Strategy text-books. The sub-factors listed in the table are compiled by the team working on the study material.	

Depart for Promotion of Industry and Internal Trade [DPIIT], Govt of India has been doing a ranking on Indian states on the basis of Ease of Doing Business [EoDB] on an annual basis. The object of this exercise is to enhance business-friendliness of Indian states by making the regulations simpler. In 2019, DPIIT gave a recommendation in the form of 80 points of reform for the states to work on and bring about business-friendliness. There is a comprehensive methodology through which each state is evaluated and the results are announced.

2.2. What are we giving to our customers? When we sell a product or a service to a customer we should be clear as to what need of the customer are we fulfilling. When we sell a washing

machine to a household we should understand that this is going to be used by the house wife or the housemaid in cleaning the household clothing. The purchasers will mostly be urban households where the housewife is pressed for time because she has to look after her husband, their children, her in-laws, do the house-hold cooking and most probably she has to go to office. She is also pressed for space because of the cost of space in the urban setting. So the washing machine that we sell should work efficiently without any hiccup, should adjust to the water that is available in our urban cities, it should be maintenance-free, it should not be prone to frequent breakdowns etc. It should look elegant too, because in the small flat, even if the washing machine becomes visible to the guests, it should only give a pleasant sight. So the product and its features should be understood and defined very clearly.

2.3. Target Group, Market Segment: We need to understand the target group to which the product is addressed. In the case of washing machine we are predominantly addressing the urban upper and middle-class house-wife. In all probability it is the house-wife who will be making the purchase decision. If you are selling toys for the age-group of 3to 5, definitely it is the children who are going to play with the toys. But the purchaser is the parent of the child; so we need to know the socio-economic status of the parent in selling the toy. If we are selling ball bearings, we know it is going to the engineering industry industrial user; so we need to understand their specific requirements and problems in designing the product. In all situations it is essential to understand the customer and decision maker very precisely; accordingly we have to design the product and offer it to them in terms that are most appropriate to their situation.

2.4. Size of the Market [Demand]: It is essential to have a fairly precise idea of the demand for the product within the given territory. The demand would depend upon the size of the population requiring the product, how frequently they need it, what quantity they need it at a time and seasonality of the demand. This calls for an elaborate exercise on demand forecasting. Some of the common techniques used in demand forecasting are (i). Trend Analysis, (ii). Regression Method and (iii). End-use method. Table-2.3 gives the applicability of these methods to different types of products and situations.

Table-2.3: Demand Fore-casting methods – their applicability to different type of products

Type of Goods	Trend Analysis	Regression Method	End-Use method
General Methodology	Consumption of the	Consumption are linked	Future growth pattern

	items can be projected to the next few years using appropriate growth-rates	to some of the following: • Population • Per capita income • Industrial output • Power generation • Rail traffic • Construction activities	of the end-use segment is assessed. Consumption of the product in each segment is noted from past data. Based on these, future demand is estimated.
Basic Goods Minerals (Coal, Crude Oil, Limestone etc.) Metals (Copper, Zinc, Aluminum etc.) Non-metallic minerals (cement etc.)	Suitable	Suitable	Less Suitable
Intermediate Goods: (Copper rods, steel pipes, drug intermediates, machine parts etc.)	Not suitable	Not Suitable	Recommended
Capital Goods, Machinery [Boilers, Motors, Pumps, Machine-tools, Generators, Transformers, Rly wagons, Containers, Trucks, LCVs etc.	Not Suitable	Recommended	Most suitable
Consumer Goods-Durable [TV, Washing Machine, Fridge, Cars etc.]	Suitable	Recommended	Not Suitable
Consumer Goods- Non-	Suitable	Recommended	Not Suitable

durable: (Wheat Rice Sugar, Pulses, Tea etc.)			

Source: Compiled by the EDII Team

2.5. Supply: Before launching a product in the market it is desirable to understand how the customers are meeting their need currently. A detailed assessment of the current suppliers, their capacities, their market shares, their product features, their prices, the process of distribution adopted by each etc. It is also necessary about the customers' satisfaction level vis-à-vis each of these products. Such a study will tell us whether there is a gap between the demand and supply, or whether there is surplus situation, whether the customers are satisfied with the products, or there are points of unfulfilled expectations. Such information would be highly helpful in designing a new product.

Data of aggregate demand and supply position would be misleading in specific market segments. It is always advisable to do specific market assessment in the proposed market to get a clearer and precise picture of the market situation. This is perhaps the only way to assess customer satisfaction levels with the existing products.

2.6. Competitive Analysis: Michael E Porter had developed a systematic way of analyzing the competitive forces operating in the market. Without going into theoretical detail, the method of analysis is described in terms of the five forces in the following tabular format. Analysis based on these five forces is able to give significant insight into the competitive characteristics of the market.

Table-2.4: Competitive Analysis Explained

The 5 forces	Description
1. Barriers to Entry	• High capital cost. Establishing facilities of reasonable /competitive capacity may involve high capital cost. This will be disadvantageous to the new entrant. • Brand loyalty: Existing brands may be commanding very high loyalty so it becomes difficult for a new entrant to get a toe-hold. • Distribution Network. Existing players may have a strong

	network. So the new entrant will have to create a comparable network before being able to compete.
2. Suppliers Bargaining Power	• There are only limited suppliers of quality. So they may have high bargaining power vis-à-vis the purchaser. • On the contrary if there are too many suppliers then the purchaser would have high bargaining power.
3. Customers Bargaining Power	• If there are limited manufacturers of the goods then they have a high bargaining power vis-à-vis the customers. • If there are too many manufacturers then the custoers would have the bargaining power.
4. Threat of Substitution	• Threat of substitution is said to exist when there are strong possibilities of the product being substituted by technologically superior/cheaper products in the near future
5. Internal Rivalry	• Internal rivalry describes the level of competition among the existing players n the industry. If the rivalry is high, margins and profitability would be low. When the internal rivalry is low, it is possible to have reasonable margins and profitability.

(Source: Developed by EDII Team based on Michael Porter's Five forces concept)

While preparing a Business Plan, the entrepreneur/researcher is advised to study the market for the given product in the framework of these competitive forces. The resulting insights would be of immense value in the making of the business plan.

2.7. Distribution: Distribution system plays a crucial role in making the product accessible to the customer. Each industry has over a period of time evolved a pattern of distribution system. Further each company has its own unique distribution system. Before embarking on a business, it is worthwhile to study the distribution system existing in the industry for each of the suppliers and the relative merits and demerits of each. Try to understand the customers genuine concerns and try to design a distribution system that meets the customers concerns most appropriately.

2.8. Promotion: The object of promotion is to make the customer aware of the product and its features. Awareness is a key factor for the customer to make a purchase decision. So promotion

is essential for every product's success. However the method of promotion would vary from product to product. The entrepreneur can gain tremendous insight by studying the promotional strategies adopted by various competitors in the field. This is a very specialized subject and hence an entrepreneur is advised to seek expert guidance in deciding the method of promotion for a given product.

2.9. Pricing: Pricing is a powerful tool in the hands of the promoter in making the destiny of the product and the company. Normally an entrepreneur would think of cost-plus pricing. This is a method that is indifferent to the market realities. It works when there is no competition in the market. When competition is strong, the seller is compelled to price the product at the going rate. The situation becomes more complicated when the customers have a fair sense of brand loyalty. Other factors that enter into pricing decisions are structure of the market, patterns of demand, competitor's cost, price elasticity of demand, customer's perception of value, offers available in the market etc. The entrepreneur is advised to seek expert guidance when dealing with pricing in a competitive market.

2.10. Market Plan: After a thorough analysis of the market situation, the Business Plan must outline a Market Plan consisting of the following aspects

a. clear definition of the Target Group
b. clear specifics of the product/s and product mix if any
c. specifications of the territory where the products are to be sold
d. realistic assessment of the market-share; quantum of sale
e. realistic assessment of the price range (Pricing strategy)
f. distribution channel
g. organization structure for Product launch and for regular marketing
h. recommending the levels of production based on the sales plan
i. recommending an appropriate Promotion Strategy with suitable marketing-mix

SAQ-2.1.

If you are planning to set up a Pathology Lab, what are the critical marketing factors that you need to assess? How would you go about making a market assessment? List maximum 10 factors.

SAQ-2.2.

If you are planning to start an up-market boutique, what are the critical marketing factors you need to consider? How would you go about making a market assessment?

SAQ-2.3.

If you are planning to set up a factor for making Roller bearings, [a bearing similar to a ball bearing but using small cylindrical rollers instead of balls.] what are the critical marketing factors that you need to assess? How would you go about making a market assessment?

Read the following Case-lets and Analyze.

1. Prakash Goyal plans to convert the ancestral property that he inherited at Indore into a budget-hotel that can generate a steady cash-flow into his family. The property is quite vast and he would like to get an idea as to how many rooms and other facilities he should prepare in the first stage. He talked to a leading hotel management consultant on this. The consultant said you have to make an assessment as to how many rooms you could sell on a steady basis in the initial phase. 'How could I make this assessment', asked Prakash Goyal. The consultant replied, 'You need to make a market assessment'.

2. Sanjay Seth plans to set up a 4-colour offset printing press. He has the working experience and some funds from his family. He went to a bank to discuss the prospects of getting a loan to part finance the project. The bank manager asked, 'Who are your prospective clients? Are you sure you would get enough orders to keep the machine and people busy? Who are your competitors in the market?'

3. Keyur Patel, with 5 years working-experience in designing and making machines for pharma industry decided to start his own business of making pharma-machines. He went to a chartered account for help in finding finance for his project. 'You know how to design and make pharma machines; but do you know which machines are needed the most, who needs them and how many in a year. Once you know these we can make a project report and work out the financials. But the first thing is, you need clarity on the marketing aspects of the project.'

4. Pradeep Joseph from Trivandrum is interested in making and marketing latex gloves used in hospitals. With this in mind, he has undergone a short-term program on the technical aspects of latex based products. He feels confident about the technology and manufacturing aspects of latex gloves. He approached an expert seeking guidance in proceeding further. He was told that latex gloves envisaged strict quality standards and hence manufacturing them demanded utmost care and quality-checks. There is good demand in the domestic market and abroad. Most of the latex is produced in Malaysia and India. There are already many in India and abroad producing latex-gloves. Competition is intense. The plant making latex-gloves is sophisticated and is available in various capacities. The economies of scale are impacted by the plant capacity. So, before starting the business one needs a thorough grasp of the competitive environment.

Annexure-2.1: Export Promotion Councils/Boards

[1]	Engineering Export Promotion Council 14/IB, World Trade Centre Ezra Street, Kolkata 700 001 Website: www.eepc.gov.in

[2]	Plastics and Linoleums Export Promotion Council Centre-I, 11th Floor, World Trade Centre, Cuffe Parade Mumbai 400 005 (Website: www.plexcon.com)
[3]	Basic Chemicals, Pharmaceuticals and Cosmetics Export Promotion Council Jhansi Castle, 4th Floor, 7 Cooperage Road, Mumbai 400 039 Website: www.chemexcil.com
[4]	Chemicals and Allied Products Export Promotion Council World Trade Centre, Ezra Street, Kolkata 700 001
[5]	Council for Leather Exports Leather Centre, 3rd Floor, 53 Sydenhams Road Chennai 600 003 (Website: www.leatherindia.com)
[6]	Sports Goods Export Promotion Council I-E/6, Swamin Ram Tirthnagar Jhandewala Exdtension, New Delhi 110 055
[7]	Gems and Jewellery Export Promotion Council Diamond Bazar, 5th Floor, 391-A, Dr. Bhadkamkar Marg Mumbai 400 004
[8]	Cashew Export Promotion Council Post Box No 1709, Chittor Road, Cochin 682 016
[9]	Electronics and Computer Software Export Promotion Council PHD House, Phase-II, Opp. Asian Games Village New Delhi 110 016 (Website: www.indiansources.com)
[10]	Apparel Export Promotion Council NBCC Towers, 15 Bhikaji Cama Place, New Delhi 110 066 Website: www.aepc.com
[11]	Carpet Export Promotion Council 101-A/1, Krishnanagtar, Safdarjung Enclave New Delhi 110 029 (Website: www.indiancarpets.com)
[12]	Cotton Textile Export Promotion Council Engineering Centre, 5th Floor, 9 Mathew Road Mumbai 400 004 (Website: www.texprocil.com)

[13]	Export Promotion Council for Handicrafts 6 Community Centre, Basant Lok, Vasant Vihar New Delhi 110 057 (Website: www.epcd.asiansources.com)
[14]	Handloom Export Promotion Council 18 Cathedral Garden Road, Nugambakkam, Chennai 600 034
[15]	The Indian Silk Export Promotion Council 62 Mittal Chambers, Nariman Point, Mumbai 400 021
[16]	Wool and Wollen Export Promotion Council 312/714, Ashoka Estate, 24 Barakhamba Road, New Delhi 110 001 (Website: www.wwepc.com)
[17]	Agricultural and Processed Food Products Export Development Authority 4th Floor, Banking Complex, Sector 19A, Vashi, New Mumbai 400 705
[18]	Marine Products Export Development Authority MPEDA House, Panampilly nagar Avenue, Cochin 682 015
[19]	Synthetic and Rayon Textiles Export Promotion Council Resham Bhavan, 78 Veer Nariman Road, Mumbai 400 021
[20]	Coffee Board, 1 Dr. Ambedkar Veedhi, Bangalore 560 001
[21]	Coir Board, PO Box No 1752, MG Road, Ernakulam South Cochin 682 016
[22]	Rubber Board, PB No 280, Sastri Road, Kottayam 686 001
[23]	Spices Board, PB No. 1909, St. Vincent Cross Road, Cochin 682 018
[24]	Central Silk Board, Meghdoot, 95-B, Marine Drive, Mumbai 400 021
[25]	Tea Board, 14 Biplabi Trailokya, Maharaj Sarani, Kolkata 700 001

Annexure-2.2:Chambers of Commerce and Industry Specific Associations

[1]	All India Cottonseed Crushers' Organization, Mumbai-400020
[2]	All India Stainless Steel Industries Association, Mumbai-400034
[3]	All India Woolen & Textiles Association, Mumbai-400002
[4]	Association of Manmade Fiber Industry of India, Mumbai-400020
[5]	Bombay Chamber of Commerce & Industry, Mumbai-400001
[6]	Gujarat Chamber of Commerce & Industry,Ahmedabad-380009
[7]	Southern Gujarat Chamber of Commerce & Industry, Surat

[8]	Cement Manufacturers' Association, Mumbai-400020
[9]	Confederation of Indian Industry,Mumbai-400018
[10]	Dyestuff Manufacturers' Association of India, Mumbai-400003
[11]	Fragrances & Flavors Association of India, Mumbai-400020
[12]	Indian Chemical Manufacturers' Association of India,Mumbai-400023
[13]	Indian Drug Manufacturers' Association of India,Mumbai-400018
[14]	Indian Institute of Packaging, Mumbai-400093
[15]	Indian Merchants' Chamber, Mumbai-400020
[16]	Indian Pump Manufacturers' Association,Mumbai-400018
[17]	Indo-American Chamber of Commerce, Mumbai-400020
[18]	Process Plant & Machinery Association of India, Mumbai-400009
[19]	The All India Ball Bearing Merchants' Association, Mumbai-400003
[20]	The Institute of Indian Foundry men, Mumbai-400051

Anexure-2.3: Research Laboratories under the Council of Scientific and Industrial Research (CSIR), Government of India

(In all 39 labs and 50 field stations or extension centers).

[1]	Central Building Research Institute (CBRI), Roorkee
[2]	Central Drug Research Institute (CDRI), Lucknow
[3]	Central Electronics Engineering Research Institute (CEERI), Pilani
[4]	Central Food Technological Research Institute (CFTRI), Mysore
[5]	Central Glass and Ceramic Research Institute (CGCRI), Kolkata
[6]	Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow.
[7]	Central Leather Research Institute (CLRI), Chennai
[8]	Central Mechanical Engineering Research Institute (CMERI), Durgapur
[9]	Central Salt and Marine Research Institute (CSMRI), Bhavnagar

[10]	Indian Institute of Chemical Technology (IICT), Hyderabad
[11]	National Chemical Laboratory (NCL), Pune

Annexure-2.4: GENERAL INFORMATION SOURCES

General Sources

- Census of India
- National Sample Survey Reports
- Plan Reports of the Planning Commission of the Government of India
- Yearly publication of the Central Statistical Organization
- India Year Book
- Statistical Year Book published by the U.N. describing world statistics on population, demography, industrial production, international trade etc.
- Economic Survey published by the Ministry of Finance, Government of India
- Annual Bulletin of Statistics of Imports and Exports of the Ministry of Commerce, Government of India
- Centre for Monitoring Indian Economy [CMIE]

Industry Specific Sources

- Monthly newsletters and annual reports of the Export Promotion Councils
- Chemical Age of India
- Indian Drug Manufacturers' Association
- Electronic Digest
- Indian Machine Tools Manufacturers' Association
- Indian Textile Bulletin
- Indian Packaging Directory
- Glass Udyog
- Economic Times
- Financial Express
- Business Standard
- Business India
- Corporate Observer

- Facts for you
- Industrial Researcher
- Chemical Business
- Chemical Weekly
- Computer Today
- Electronics For You
- Indian Electrical and Electronic Manufacturers' Association
- Popular Plastics and Packaging
- Food Industry News

Annexure-2.5: **Guidelines for Data Gathering**

- **Preamble:** Business projects/ ventures are generally multi-disciplinary in nature: the information required will be of different domains/disciplines. Some relating to technicalities, some relating to the market, some relating to commercial, some relating to the economy etc. No one is expected to have expertise in all the domains. Most persons have expertise in one or two domains only. So do not hesitate to associate with persons with expertise in the appropriate field to gather the relevant information. The approaches to data gathering can be described as [a] Discussions with Experts, [b] Desk Research and [c] Questionnaire Administration..

a. *Discussions with Experts*: This is the first stage of data gathering and it is a semi-structured and semi-formal format of data gathering. Identify a list of experts who are likely to be knowledgeable about the business. It could be someone who is engaged in this specific business, someone supplying materials/inputs to the business we are planning to enter, an experienced banker, an experienced business executive/Chartered Accountant/business-economist etc. Some of these persons would recommend you other persons who would be more knowledgeable on the business. You should plan a set of objectives/questions which you need to get answer for. They should be able to give you some insights on

    - Existing suppliers/producers
    - Consumer profile
    - Relevant inputs to this industry and their suppliers
    - The distribution system
    - Nature of competition and market structure
    - Industry associations

- Prominent persons etc.

b. *Desk Research:* This is the process of library research to gather information on the business, industry, products, companies in the business, personalities associated with the business etc. There is a whole lot of publications available in any library dedicated to business and industry. There are large number of internet resources which can be accessed easily. Most of the trade/industry associations [FICCI, CII, etc.] also bring out publications; these also help you gather relevant information. While compiling information care should be taken to cite the source and date on which they have been published. Credibility of the source is an important factor just as making sure to gather recently compiled data.

c. *Questionnaire Administration [market Survey]*: This is a more systematic way of gathering relevant data. The critical dimensions to be taken care in this method are

- Decide on the objective of the exercise.
- Decide the target group for data gathering. This will depend on the objectives listed earlier.
- Develop the Questionnaire. This calls for skill and experience See Box below.
- Train the investigator to ensure proper response.
- Pilot Survey. Initially the survey is conducted with a small sample and the deficiencies in the Questionnaire and the process of administering the same can be rectified. Then conduct the full survey.
- Actual Survey with adequate supervision
- Screening the completed Questionnaire and compilation of the data.

d. *Compilation of the Data, Analysis and Interpretation*: The data need to compiled and analyzed very systematically. This needs experience and skill of conducting market survey. If the entrepreneur is planning to do the survey on his own it is advisable to take help of experienced person/s in the initiative. Use of minimum statistical tools [average, weighted average, frequency distribution, matrix etc.] are advised. There are also professional agencies [like the Industrial & Technical Consultancy Organizations in every state] who could be hired to conduct such surveys.

Box-2.1. Some Suggestions to Market Assessment

a. *Tips for Questionnaire Design*

- Make the questions very simple and specific
- Define every concept in simple and precise terms before asking questions

- Give adequate attention to sequencing the questions; never backtrack.
- Do not leave anything to the investigator's discretion. Define very finely. Further train the investigator properly.
- Do not frame question that require computations before answering.
- The layout of the instrument [questionnaire] should be clear for the respondent to fill the questionnaire easily.
- It is desirable to incorporate questions that enables cross-checking. Do not repeat the same question, but frame it differently to arrive at the same conclusion.
- Few open ended question are permissible, normally towards the end. This enables the respondent to offer his/her views or provide additional information.
- Always avoid sensitive or controversial questions.

b. *Tips for Personal Interactions*

- "Warming up." When you are meeting a person for the first time, start with pleasantries and try to establish some rapport before commencing on the professional part of the interaction. Make the initial questions extremely simple so that the respondent develops a favorable and cooperative frame of mind with the investigator.
- "Networking." Reference from known persons or organizations would help in getting access to the respondent who is expected to be busy otherwise.
- "Ethical Code." It is essential to assure the respondent that the investigator or his/her organization would not reveal the respondent's identity or his/her responses to anyone else. Similarly if the respondent comes to know that you are working for his/her competitor, he/she may not respond freely. It is not advisable to lie in such situations; the situation may have to be managed diplomatically.
- If the respondent is not inclined to disclose certain information, please accept his answer gracefully; do not pursue him/her relentlessly.
- You must develop the instinct to catch attempts to palm off exaggerated /false information. Make sure to cross-check such information from other sources and discard them carefully.
- When dealing with competitors, you must understand certain sensitivities. An employee may not like to give information without the consent of his employer. So never put him in trouble for your benefit. A retired/ ex-employee may have his bias while giving information. An employer may try to mislead you with wrong information. So please cross-check such information.
- There are places where a number of experts/info-sources are available at singular location. So

try to locate them. Princess Street in Mumbai is an example for information on pharma products and bulk drugs. Textile markets, plastic clusters, granite clusters etc. also exist in many places.

- Do not rely on your memory. Document everything you hear.
- Retain the Visiting cards [contact details] of every person you have met.
- Very often choice of products is made by decision-influencers. In the matter of building hardware, the architects make the choice more than the contractors or the owners.

Chapter-3

ENTREPRENEURIAL ASPECTS OF BUSINESS PLANING

Chapter Objective: This Chapter is designed to inculcate in the participant

- An overview of the different patterns of ownership and constitution in the context of the business and the regulatory frame-work within which the business is design to operate.

Learning Outcome: On completion of this Chapter the participant will be able to

- Appreciate the various patterns of ownership and constitution,
- Make a choice of ownership pattern and constitution in the given context of the business and the given objectives of the owners.
- Appreciate the regulatory frame-work and initiate necessary actions in accordance with the business being pursued.

	Index to Chapter-3	
3.1.	Promoters	
3.2.	Resources of Promoters	
3.3.	Constitution of the Entity and Incorporation	
3.4.	Permissions & Clearances	
3.5.	Not-for-profit Entities	
	Box-3.1: Summary of Key Statues pertaining to incorporation, registration and Compliances	

3.1. Promoters: list of the main promoters with brief profile of each should be included here. Detailed resume of each must be given in annexures at the end of the chapter. Table-3.1 is a suggested format to disclose the background and profile of each promoter.

Table-3.1: Brief background of Promoters			
No.	Name	Age & Education	Proposed position in the business
1			
2			
3			
4			

(Detailed resume to be annexed)

It is extremely important to identify the leader of the team and the proposed work-assignments within the business at an early stage. Leadership is the most critical attribute in entrepreneurship just as in any competitive game. So, this has to be assiduously inculcated and emphasized across the team from the beginning.

3.2. Resource of the Promoters: It is desirable to list down the resources being made available to the business-entity from the promoters. If the promoters are confident of mobilizing resources (financial, physical or other) from elsewhere, then these need to be listed down separately and also the person responsible for mobilizing the said resource in time.

Table-3.2: Details of Resource Mobilization			
No.	Name	Expertise and functions to be managed	Financial resources being mobilized from own as well as from other sources.
1			
2			
3			
4			

3.3. Constitution of the Entity and Incorporation: The options available to the business entity are [a] proprietorship, [b] partnership, [c] private company for any entity being formed as a for-profit activity. The considerations in the choice of the constitution are nature of activities, number of promoters, and the level of formality desired. These are summarized in the Table-3.3 below.

Table-3.3: Forms of Constitution and Incorporation

No. of key Promoters	Suggested constitution of the entity	Process of incorporation and implication to liabilities of the promoters
1	Proprietorship	When the proposed level of operations is not very large the entrepreneur may start the same as a proprietorship with the least of formalities. Income Tax authorities would consider the income as accruing to the individual and the tax applicable would be that relevant to the individual. The individual promoter is expected to bear the entire liabilities.
	On-person-company	Needs to be incorporated as a one-person company u/s 2(62) of Indian Companies Act. Liabilities are limited to the extent of the share capital. Taxation as per corporate tax rules
2 or more but not more than a handful	Partnership	Partnership deed is to be created. Can be registered to enhance legal validity. Income is distributed to the partners as per the deed. Taxation is on the individual partners as applicable to individuals. Unlimited liabilities.
	LLP [Limited liability Partnership]	Has to be incorporated under the LLP Act 2008. Liabilities are limited. Income tax will be at 30 %. No further taxation at the individual level.
Up to 50 share-holders	Private Limited Company	Needs to be incorporated under Indian Companies Act. Limited liability. Taxation as per corporate tax rates.

3.4. Permissions and clearances: Under the provisions of the Micro Small and Medium Enterprises Development Act 2006 every Micro and Small are expected to file an Entrepreneurs Memorandum with the District Industries Centre where it plans its activities. This can be done online; it is a mandatory requirement for all subsequent permissions and registrations that the entity would need from any depart of the state and central government. For enterprises in the medium scale the registration through filing a memorandum is mandatory for manufacturing enterprises but optional for those in the service sector. However, even for service sector enterprises the filing of the memorandum is recommended since this is a primary necessity for any other permission/clearance from any department of the government. In the case of large-scale enterprises, they are expected to apply to the Secretariate of Industrial Approvals [SIA] of the Govt. of India.

In July 2020 Govt of India has revised the limits of micro, small and medium enterprises upwards. GOI has also converged the limits applicable to manufacturing units and service units to have a uniform set of criteria. There are no separate criteria for manufacturing and service sector entities. All entities are mapped using the **twin criteria of Capital Investment and Turnover.** The revised limits are given in Table-3.4 below.

Table-3.4: MSME limits from July 2020

	Upper limits of Capital Investment	**Upper limits for Turnover**
Micro	Rs 1 crore	Rs 5 crore
Small	Rs 10 crores	Rs 50 crores
Medium	Rs 50 crores	Rs250 crores

In a way the MSME registration for all MSMEs and the SIA registration for all LSEs can be termed as the most primary registration that an entity in India needs to start with. The list of other clearances/permissions required are outlined in the Table-3.4 below. For most of the clearances DIC will act as the nodal agency.

Table-3.5: List of Permission and Clearances to be obtained			
No	Registration under		Nodal agency
1	MSMED Act	From DIC [District Industries Center] under the MSME Development Act	DIC
2	Income Tax	From the Income Tax Dept based on the certificate of incorporation	Dept. of Income Tax
3	GST	Dept of Goods & Service Tax	DIC
4	Factories Act	If more than 10 workers are employed and electric power is used.	DIC
5	Shops & Establishment Act	If operating within city limits	DIC
6	Provident Fund	For employees to be covered under PF	PF Dept
7	Employees State Insurance		DIC/ESI
8	Registration with local Civic authorities	Panchayat/Municipality/etc.	Local bodies
9	Environmental Clearance	For chemical/process industries for pollution clearance.	DIC
10	Explosives Act	For making or using explosives	DIC
11	Food Processing Order [FPO]	If processing fruits and / or vegetables	DIC
12	Textile Commissioner	If engaged in textile industry in any manner	DIC
13	Drugs Controller	If in the pharma industry	DIC

[Developed by EDII team]

Clearances/permissions listed under nos. 9 thro 13 are applicable to the enterprises I the respective sector. A textile enterprise would need registration/ clearance from the Textile Commissioner; a pharmaceutical enterprise would need clearance from the Drugs Controller

etc. Thus, an enterprise has to seek about 9 permissions in all. It is to be noted that in all cases DIC functions as the nodal agency to enable the necessary clearances.

3.5. Not-for-profit Entities: Entrepreneurs may be interested in setting up not-for-profit entities and manage philanthropic activities. Examples are educational institutions, hospitals, orphanages, old-age-homes, research establishments etc. These entities can be constituted as societies under the **Societies Registration Act 1860** [a Central Act] or as **trusts** under one of the prevailing state acts where the activities are proposed or as a **foundation under section 8 of the Indian Companies Act [a central Act].** This would cover the incorporation of the entity. The entity would need to register itself with Charity Commissioner if it is planning to accept donations, with dept of education/healthcare/ social welfare/ science etc. depending on the dept under whose jurisdiction the operations of the entity would fall into.

Box 3.1: Summary of Key Statues pertaining to incorporation, registration and Compliances					
1	**Constitution, Incorporation, and the related Compliances**				
	Promoters and Nature of association	**Constitution**	**Governing Act**	**Nature of Compliance**	**Nodal Agency**
	1.1.For-profit entities				
	a. Single Promoter	Proprietorship	NIL	NIL	NIL
	b. Handful of promoters	Registered partnership	Partnership Act 1932	NIL	NIL
	c. Single Promoter with limited liability	One Person Company	Companies Act	Annual Returns	Registrar of Companies [ROC] located at each state Capital
	d. Few promoters/ shareholders with limited liability	Limited Liability Partnership	LLP Act 2008	Annual Returns	Registrar of Companies [ROC] located at each state Capital
	e. Promoters/ shareholders not exceeding 50	Private Limited Company	Companies Act	Annual Returns	Registrar of Companies [ROC] located at each state Capital
	f. Shareholders exceeding 50	Limited Company	Companies Act	Annual Returns	Registrar of Companies [ROC] located at each state Capital
	1.2. Socially oriented Business entities under the Cooperative sector				
	Any no of shareholders with each shareholder holding single share	Cooperative Ltd firm	cooperatives Act of the state where the firm is located	Annual Returns	Registrar of Cooperatives of the respective State Govt.
	1.3. Not-for-Profit entities				
	a. Few promoters	Trust	Relevant act of	Annual	Office of the

			the respective State Govt.	Returns	Charity Commissioner of the state.
	b. No. of Promoters/ shareholders not restricted	Sec-8 Company [foundation]	Companies Act	Annual Returns	Registrar of Companies [ROC] located at each state Capital
2	**Registration of Business for Business entities in manufacturing & service sectors**				
	Size of Business [in Cap. Invest. and Revenues]	**Category**	**Governing Act**	**nature of compliance**	**Nodal Agency**
	a. Cap. Inv < Rs 1 Cr & Rev. < Rs 5 Cr	Micro	MSME Dev Act	Initial Regn. & Annual Returns	District Industries Centre [DIC]
	b. Cap.Inv < Rs 10 Cr &Rev. < Rs 50 Cr	Small	MSME Dev Act	Initial Regn. & Annual Returns	District Industries Centre [DIC]
	c. Cap.Inv < Rs50 Cr &Rev. < Rs 250 Cr	Medium	MSME Dev Act	Initial Regn. & Annual Returns	District Industries Centre [DIC]
3	**Taxation**				
	Entity	**Basis of Taxation**		**Remarks**	
	3.1.Income Tax				
	a. Proprietary firm	Proprietor/Partners are treated as Individuals for taxation. Individual tax-rate apply to each.		Tax paid and returns filed against individual PAN	
	b. Regd. Partnership				
	c. All other entities	Corporate Tax-rates apply.		Each entity pays tax and files against its PAN	
	3.2. Goods & Services Tax [GST]				
	All business transactions of all entities	Every firm and every entity registers with GST authorities; pays and files returns accordingly.			
4.	**Location specific regulations and compliance**				
	4.1. Registration with Local-body	Firm/Entity has to register with the local body [Municipality/Gram Panchayat etc.] and comply with its guidelines and taxes.			
	4.2. Shops and Establishment Act	Any facility created within urban limits will be governed by Shops and Establishment Act			
5.	**Industry/Sector specific Acts and compliance to them**				
	Firms/Entities covered	**Relevant Acts/ Rules**	**Nodal agency**		
	Engaged in Textiles	Rules of the State Govt.	DIC & Textile Commissioner		
	All entities/firms like to cause environmental pollution	Environmental Pollution Control Act	DIC & Pollution Control authority of the respective state.		
	All entities / firms procuring, handling using, processing, marketing explosives	Explosives Act 1884.	DIC & Explosives Controller		
	All entities/firms consuming, processing, marketing drugs and pharmaceuticals	Drugs and pharmaceuticals control order	DIC & Drugs Controller		
	All entities/firms engaged in processing, marketing food	Food processing Regulations /order	DIC; FSSAI [Food Safety & Standards Association of India];		

	products.		Food Controller.
6.	**Rules, Acts governing industrial organizations, workers compensation, discipline, Trade unionism, Social security etc**		
	6.1. The Occupational Safety, Hygiene & Working Conditions Code 2020		
	6.2. The Industrial Relations Code 2020		
	6.3. The Code of wages 2019		
	6.4. The Code of Social Security 2020		
7.	**Rules regarding Intellectual Property Rights**		
	7.1. The Indian Trade Marks Law		
	7.2. The Patent Act 1970		

Case-lets:

1. ***Mayur Shah and his wife Ratna Shah were teaching science in higher secondary schools for more than a decade. Now they want to start a coaching academy preparing students for Board exams as well as for competitive exams like JEE, NEET etc. Two of them will be owners and prime movers of the institution. What type of constitution would be most appropriate for their setup? What type of permissions and licenses would be required to conduct their activities legally and peacefully?***
2. ***Dr Rajesh Kulkarni, after working as an oncologist for more than a decade at the General Hospital wants to set up a private Cancer Hospital & Research Centre to take care cancer patients. What should be the constitution of his organization? What are the clearances/permissions required before commencing operations?***
3. ***Shankar Shastri, after nearly two decades of experience in the pulp and paper industry, wants to set up a plant to make duplex-board which finds extensive application as packaging material. He has a group of friends and associates to support in his venture. He envisages the investment will be about Rs 500 lacs. What should be the constitution of his organization and what are the clearances required to start the business?***
4. ***Dr. Navroz Wasifdar, after two decades of teaching and research as an educationist, wants to set up a school that combines modern technology and Indic values to offer value-based education. He has the backing of a number of NRI scientists and researchers with whom he was associated during his stay abroad. What should be constitution of his organization and what clearances/ permissions are required for him to commence the venture?***

SAQ-3.1.

Dr Mayur Vyas and Dr Rashmi Mayur Vyas are planning to setting up Nursing home with focus on n gynecology. What are the possible alternative options in deciding the constitution of the organization? Which one would you recommend and why? What are the permissions required in executing the project?

SAQ-3.2.

Mahesh Vasani , an NRI Businessman from UK is planning to set up a 3-star hotel in the city at an estimated cost of Rs 8 crores. What constitution would you recommend? What are permissions required in implementing the project?

Chapter-4

TECHNOLOGY ASPECTS OF BUSINESS PLANING

Chapter Objective: This chapter is designed to inculcate among the participants

- An overall understanding of the various technological factors and facilities related aspects that impact the business significantly.
- The skills to understand and analyze the various technological facilities for the optimum benefit of the business at hand.

Learning Outcome: On completion of the Chapter the participants will be able to

- Appreciate the overall technological aspects and facilities required to the business
- Analyze, evaluate and make definite choices from among the options in terms of facility-type, sourcing, etc. for the optimum advantage of the business.

Index for Chapter-4

4.1. Relevance of Technology in SMEs: Invariably all SMEs engage technology in the form of processes, equipment, gadgets for the purpose of converting inputs into desirable outputs, in transporting materials and products, storing of materials or products or in some other forms. Almost all manufacturing processes envisage conversion of input to outputs engage some form of technical know-how. With improving standard of living and lifestyles, customers expect more sophisticated products and this makes the processes also more sophisticated. The markets are becoming more complex and this also places pressure of technology to produce better products.

4.2. Sources of Technology: For the manufacturing industry, technology comes in one of the following forms (a) Know-how of the processes (b) production, testing and quality assurance equipment/systems, (c) material handling equipment/systems, (d) material storage and preservation systems etc. A new enterprise acquires technology in one of the following manners:

a. One or more key persons promoting the enterprise (or hired by the new firm) have learned/ trained in the process/technology for considerable period of time and they in turn become the source of the process/technology. Examples: Setting up a furniture manufacturing unit; Setting up a foundry for ferrous or non-ferrous metals; Setting up a restaurant etc.

b. Acquiring the technology through purchase of designs and drawings from a well-known firm engaged in the same business. Example: One could think of setting up a unit for making air-conditioners, refrigerators, and similar other white goods.

c. Hiring an expert /Consultant who is well-versed in the business. This is relevant in many of the process industries like paper& pulp, some of the chemicals, dyes & intermediates etc.

d. In the case of some products/industry – especially in the service sector businesses - purchasing the key equipment itself ensures transfer of technology. Usually, the equipment supplier provides it. For Examples: Photocopying systems; Printing presses; etc.

e. Reverse Engineering. Very often skilled technicians are able to open up existing machines and gradually acquire the know-how to develop each of its parts and the

machine itself. This is a time-consuming process (and hence costly also), but resorted to when the technology is not available easily and skilled technicians are available to do the reverse engineering.

f. Developing the technology/process through Research & Development. This is a process adopted by large organization and R&D establishments. Individual entrepreneurs would not have the time and resources to pursue this process.

g. Formal Technical Collaborations. This method can be adopted when the technology/process is fairly complex and the size of the business is of some critical mass so that the enterprise can afford to go for a formal collaboration. This may not be relevant for micro and small enterprises being established first generation entrepreneurs.

4.3. Choice of Technology: The critical factors involved in the choice of technology/process/equipment are briefly outlined in Table-4.1.

Table-4.1: Key factors in the Choice of technology

Capability of the Vendor.	• How many tech-transfers /equipment the vendor has done in the past. Get their list and verify their experience. • In the case of foreign suppliers, Indian embassies in the respective countries can help. There are specialized agencies like Dunn & Bradstreet who could get information for small fees.
Compatibility with Indian / local environmental conditions, inputs & utilities	• Is the technology to the proposed environmental conditions? Does it work with local inputs and utilities? • Study the technical literature carefully. • Find out such systems operating in similar conditions and their experience.
Matching the Capacity with the expected level of operation.	• International vendors tend to supply plants at capacities operating in international markets. It may turn out that domestic markets do not need such large capacities. Should we end up with high capital investment and low capacity utilization? • What are plant capacity of the competitors in the domestic market? What is the scope for exports? What is the future scope of this product in the

	domestic Market?
Conditions for Optimum Results	• The achievement of rated capacity, product quality, raw material consumption and such other profitability drivers are many times contingent upon operating parametres, e.g. ambient temperature, input specifications, human skills, etc. you need to make a realistic assessment in respect of likely operating parametres and hence profitability driver behavior.
Problems of scaling up.	• Many processes/technologies are available from domestic R&D labs. Have they been scaled up for commercial scale of operation? • If not, they are risky.
Continued Support services	• Ensure that Foreign/domestic vendors have infrastructure and practice of providing support services of trouble-shooting, after-sale service, spare-parts and component support etc. • Do they enter into separate contract for such services? If the vendor is supplying for the first time in India, extra care must be taken. • Check the experience of others who have procured process/system from the vendor.
Costs: Initial Costs & Operating Costs	• To compare alternate options, it is desirable to convert the total cost per unit of realizable output.
Intangible benefits, if any	• Quality of output, ease of operation, brand image etc. also need to be considered in making the final choice

4.4. Managing the Technology Transfer: For success of the business it is essential that the technology absorption is smooth and results in trouble-fee, economic operation with quality output on a sustainable basis. To achieve these the enterprise has to take care of the following aspects: (i) selection, procurement, installation and commissioning of the equipment/systems; (ii)

acquiring skills to operate and maintain the equipment/systems; (iii) creating a technological organization structure and (iv) managing the organization effectively. The technology organization should continuously keep tab on the developments and innovations being undertaken elsewhere among competitors; it must also explore improvements continuously.

4.5. Choice of Location: The traditional logic used to determine this choice is the relative costs involved in transporting inputs to the plant vi-a-vis the cost of transporting the output from the plant to the market. While the logic remains the same, with increasing competition in the market and with increasing sophistication in the process of manufacturing, many more items have joined cluster of inputs being considered in the analysis. When competition becomes intense, it is necessary to use more sophisticated equipment. This necessitates sophisticated spare-parts, accessories, tools, more skilled operators etc. So, the list of inputs, their criticality, availability and costs become more significant in the decision-making process. In addition to these capital subsidies, tax-breaks are also factors, that need to be considered in the choice of location.

4.6. Creating Facilities: Traditional approach to setting up of business enterprises envisaged creation of stand-alone facilities for making the components/sub-assemblies and then for making the full product at one location. This process takes quite a lot of time for implementation and significant capital expenditure in achieving the desired goals. Today, for a resourceful entrepreneur faster and perhaps more economical options are available.

Many foreign automobile companies have started plants in India and their products are being rolled from these plants for domestic consumption. Invariably, all of them have established only assembly plants. The large number of components were imported from their mother-plants abroad and were assembled here in India in the assembly plants. Gradually some of these components were procured in India or their foreign suppliers set up plants in India to manufacture them. In this manner, the automobile companies and their component manufacturers achieved significant economy in production costs; they also hit the market and reached their domestic customers faster. In 2020, i-phone manufacturer decided to shift from China to India, what they actually did was to use the plant of Nokia in Tamil Nadu lying idle for the last few years and commence production immediately.

These examples illustrate operations at a large scale. For smaller operations also such possibilities do exist in the market to a fair extent. The challenge for the entrepreneur is to identify/locate such options and use them innovatively. Some of the critical options available in the market are listed in Table-4.2

Table-4.2: Choice of Facilities

Option	Description	Advantages
Make of Buy	• Identify the critical parts/sub-systems that need to be made by one-self. • Farm out non-critical parts/sub-systems to vendors • Create networking with a number of vendors through appropriate contracts	• Can focus on critical aspects • Can minimize the implementation-time. • Can minimize the capital investment • Can reach markets and customer faster
Make through SKD/CKD[@] kits	When the entrepreneur is planning to produce a foreign assembled product, the broad strategy could be: • Initially import the products and market them to create market awareness. • After some time, import SKD kits, assemble them locally and market. • Still later import CKD kits, assemble locally and market • Simultaneously work on the indigenization of the components. [More relevant in engg. industry]	• Offers phase-wise implementation • Faster reach to the market and customers • Capital investment is made in phases. • Market acceptance is achieved faster • Minimizes the risk of the project.
Forward/Backward Integration	A Pharma project can be implemented in two phases: • Phase-1: procure intermediate	• Can reach the market faster. • Achieves phase-wise

	product and make the final product; market the same. • Phase-2: start making the intermediate product as a feeder plant. This is a case of backward integration. Depending upon the situation, forward integration also can be attempted.	capital investment. • Minimizes risk
Take facilities on lease.	• If suitable facilities are found available, lease them and implement the project. • At appropriate time, think of creating own facilities. It is not absolutely necessary.	• Project can be implemented faster • Capital investment will be much lesser. • Better financial viability. • Lower risk
Choice of capacity	Normally decided by • how much the entity can sell in the market immediately and • capacities of the competitors in the market.	• If the proposed capacity is less than what the competitors have, then the entity would lose on economy of scale. • If the capacity is far higher than others, the entity may suffer from low capacity-utilization.
Second-hand machinery	• Imported second-hand machinery can bring down the capital cost substantially. • Care has to be taken that they are worth what you are paying for. This can be done by getting the machinery assessed by competent technical consultants. Before you engage, the consultants'	• Imported second-hand machinery duly endorsed by technical consultants can fetch you loan. • Reduction in capital cost will have favorable impact on the economic viability of the project. • Domestic second-hand

	competence and credibility must be assessed.	machinery may not fetch loan from the banks.

@ SKD stands for Semi-Knock-Down kits; CKD stands for Completely-Knock-Down Kits

Case-lets

1. ***Harish Sharma plans to set up a plant for making copper wires of 30 to 50 micron diameter [1 Micron is one-thousandth of a millimeter]. The product- micro-wires - find application in micro-electronics as winding wires for micro-motors etc. These are used in computers, mobiles, electronic watches etc. He has tied up with a German company for technical collaboration. The German company will help in procuring the equipment, creating the facilities, and training the operators. He was seeking guidance from an experienced technocrat as to the finer aspects he should take care in the process of collaboration so that no critical aspect is overlooked. His concern is that the project should be implemented successfully and that he is able to get the expected out in good quantity and in acceptable quality.***
2. ***Prashant Shastri plans to create facilities to make Fibre-Reinforced Plastics [FRP] based components, vessels and parts which have extensive industrial applications. He has explored technical collaboration with a South Korean company. He is seeking expert guidance on collaboration-process and later to make best use of the tie-up. What are the precautions he should take so that his company's interests are protected? What are the critical aspects that he should attend to so that the collaboration results into a successful project?***

SAQ-4.1

Suresh Karmakar, is planning to set up a factory for making photovoltaic cells used in solar installations. He is negotiating for technology from a Singapore based firm. What are the critical technological factors that he would need to focus for the successful implementation of the project?

SAQ-4.2.

Abhijit Kulkarni is planning to set up a firm that will collect electronic waste from households and business establishments and convert it into small pellets to be used as fillers in civil-construction. He plans to import the technology from Japan. What are the technical factors that he would need to consider in successfully implementing the project?

SAQ-4.3.

Prem Shankar Tripathi and his team of engineers are entering into a joint venture with the local Municipal Corporation to process the drainage into pure water and manure in the form of pellets. The project is implemented in the PPP (Public-Private-Partnership) Model. Tripathi has contracted the know-how from a French firm. The manure in the form of pellets need to be marketed to farmers. The municipality would take the purified water. Identify the critical technical areas and factors that need to be focused for successful implementation of the project.

Chapter-5

FINANCIAL ASPECTS OF BUSINESS PLANNING

Chapter Objective: This Chapter is designed to inculcate among the participants

- The knowledge and skills estimate and arrive at the Capital Cost of the Project, the costs of operation for different years and an understanding of the various parameters to decide the means of finance for the project.

Learning Outcome: On completion of this Chapter the participants will be

- Able to critically evaluate the project situation and make a decisions regarding the capital cost of the project, operating parameters and an optimum means of finance in the context of the project at hand.

5.1. Nature of Costs

There are essentially two types of costs. Certain costs are to be incurred upfront. Like the cost land and buildings or the cost of equipment. These are costs incurred in creating long-term assets. Such long-term assets are used over a long period of time. The period of recovery of the investments made depends on the life of the assets. These costs are generally known as **capital cost** of the project. [also known as the project cost]. As illustrations of the capital cost we have cited costs incurred on land building or machinery. These are not the only costs incurred in creating the assets of the project; hence these are not the only components of the capital cost. A detailed treatment of the capital cost is given in the next sub-section.

There are also costs which have relevance to day-to-ay operation of the plant. Like the cost of electricity or the cost of raw materials. These cost components are relevant to the operations of a given period. It is natural to expect to recover these costs from the output generated during the period. All such costs form components of the **operating cost**. Examples of operating cost are raw materials, consumables, utilities [power, water, gas, coal, steam etc.], direct labour charges, rent payable, interest costs and so on. A detailed and systematic listing of the components of operating costs is given in a subsequent sub-section.

Before estimating the costs, it is essential to understand and classify the cost components into *capital costs* and *operating costs*. Only then can we make a proper analysis that will enable decision-making.

5.2. Components of Capital Cost.

The various components of capital cost observed in any industrial project have been classified into a set of eight components. These are listed in Table 4.1. Detailed descriptions are given subsequently.

Table-5.1: Components of Capital Cost of Project

S.No.	Cost Component	Rupee Cost Rs million	Forex Cost $ Million	Total Rs Million
[1]	[2]	[3]	[4]	[5] = [3] + [4]x [Forex-Rate]
1	Land & Site Development			
2	Buildings & Civil Construction			
3	Plant & Machinery			
	a. Indigenous			
	b. Imported			
4	Technology Transfer			
	a. Technical Know-how fees			
	b. Cost on Domestic Technicians abroad.			
	c. Cost on Foreign technician in the domestic country			
5	Miscellaneous fixed Assets			
6	Preliminary & Pre-operative Expenses			
7	Contingency Provision			
8	Working Capital Margin			
	CAPITAL COST OF THE PROJECT			

a. **Land & Site Development:** This broadly includes the cost of the land and the cost incidental to it. The cost of acquiring the land like stamp-duty, legal charges etc. will

form part of it. Site development will include cost of leveling/filling, fencing or compound wall approach roads, landscaping and any other expenses on the site.

b. **Buildings & Civil Construction:** This will include the cost of constructing the main buildings, all auxiliary buildings like administration, power-house, security cabins, canteen, rest-houses, water-supply system including tube-well, pumping station, underground and overhead tanks, streetlight within the compound, vehicle parking sheds, and all other civil constructions.

c. **Plant & Machinery:** There are two major parts in this: Machinery from domestic sources and machinery from foreign sources. In either case the cost must cover the basic machinery cost offered by the vendor, the taxes payable on that, fright up-to factory premises, handling charges and cost of installation & commissioning.

   In the case of domestically sourced machinery the basic cost will be the cost offered by the vendor at its factory or any other place specified in the offer; PLUS domestic taxes payable; PLUS freight from there to the factory premises; PLUS insurance for the duration of the transport; PLUS handling charges at site and charges of installation and commissioning.

   For imported machinery the basic cost will be the FOB [Free-On-Board] cost quoted by the vendor at a port of its convenience; PLUS the cost of insurance and freight to the port nearest to the purchaser; the cost up to this point is called the CIF [Cost-Insurance-&Freight] cost. The custom-duty payable at the entry-port must be estimated; freight from the entry-port to the factory premises must be estimated; handling charges and installation & commissioning charges must be computed separately. The sum of all these costs form the total cost of imported machinery. In the case of imported machinery, the FOB cost will be in foreign currency while the rest can be in domestic currency. At the stage of estimation, it is desirable to keep the foreign costs in the respective foreign currencies.

d. **Technology Transfer:** Wherever there is a technology transfer, there will be a know-how fees which is payable in installments, but all of which shall be in foreign currency.

There may be a provision for training of technicians at the principal's premises for which there will be some expenses payable in foreign currency. The travel-cost of the domestic technicians will have to be borne by the project in domestic currency; the incidental expenses of the technicians abroad will have to be included in the project cost and this will be on per diem basis in foreign currency. Where there is a provision for the foreign experts to come to the project-site in the domestic country, their local travel and hospitality expenses will have to be part of the project-cost in domestic currency. There must be a clause stipulating their charges in foreign currency to be paid to the principal; this has to be estimated separately. Sometimes, technology transfer entails an annual royalty payment, or recurring royalty payment, linked to volume of production in a specified period. This is operating cost.

e. **Miscellaneous fixed assets:** All long-term assets, which are essential to the functioning of the plant, but do not directly contribute to the production process come under this category. An illustrative list is given below:
    - Quality control and testing equipment
    - Material handling equipment/systems
    - Air conditioners & Systems
    - Standby power generation systems
    - Vehicles [cars, trucks, pick-up vehicles etc.]
    - Fork-lift trucks, cranes, hoists, etc.
    - Fire-fighting systems
    - Furniture, fixtures, office equipment etc.

f. **Preliminary & Pre-operative Expenses:** Expenses incurred at the early stage of the project in conceptualizing and initiating the project come under the head of Preliminary Expenses. Expenses incurred during the implementation of the project are grouped under the Pre-operative Expenses. They do not create capital assets, but these expenses are essential to establish the project and they have long-term impact on the project. Hence, they are treated as Capital expenses; technically speaking they are capitalized. Illustrative list of the expenses are given below.

Table-5.2: Illustrative items under Preliminary & pre-operative Expenses	
Preliminary Expenses	• Company formation expenses • Deposit and fees payable for telephone, power connections and similar expenses. • Expenses on market survey, feasibility study etc. • Expenses of Prototype development, testing and other technology development expenses. • Fees payable to banks, financial institutions etc.
Pre-operative Expenses	• Establishment Expenses during the implementation period covering salary, office expenses, travel etc. • Interest on loans during the implementation period • Trial- production exps. including power, materials, labour etc.

At the planning stage all these expenses cannot be estimated very precisely. However, attempts are to be made to assess the expenses from the parameters relevant to them, the manner in which the project is planned, to be implemented and the time-period involved in implementing the project.

g. **Provision for Contingencies:** Between the planning of the project and completion of the project, there is bound to be changes in the elements of the project, due to escalation I prices, or due to changes in the parameters of the project or both. As a matter of caution, we have to provide for such fluctuations in the costs. This is the principle of making a provision for contingencies.

In practice the process begins by identifying the costs that [a] are firmed-up and [] those which are still to firm-up in every cost-component. For instance, if the purchase of the land is finalized and if some advance is already paid, then there is unlikely to be any change in the cost of land. Similarly, if the machinery is finalized and orders are placed with the vendors, there is little likelihood of any change in the cost of machinery. A

project-planner identifies all firm elements of costs and segregates them. He would list all non-firm elements of the cost and would impute values for the escalation likely to happen on each component within the expected project-completion period. The total of these values would be the provision for contingencies. Normally for a project that is expected to be implemented within 9 to 12 months the contingency provision should be about 5 % of the non-firm elements of the cost.

h. **Working Capital Margin:** We have calculated Capital Cost of the project below. Working capital is the money required to run the business once it is set up, such as purchase of raw material payment of wages, utilities, etc., goods-in-process, holding of finished stock, money locked in book-debts, etc. The bank gives working capital loan advance against working capital requirement. However, the bank does not meet 100% working capital requirement, which the owner must meet from his own sources, and this is called working capital margin. This estimation of this component is shown in the table below:

Table-5.3: Estimation of Working Capital	
Working Capital [WC]	WC = Current Assets – Current Liabilities = Raw Material Inventory + WIP + Finished Goods Inventory + Receivables – Creditors
Bank Loan	75 % of WC
Margin for Working Capital	25 % of WC
Note: In the estimates of Capital cost, the WC Margin required in the second year of operation is taken as an abundant precaution for a new project.	

5.3. Preparing an Operating Plan: The sequence of preparing an Operating Plan is described in the following Table. It begins with the preparation of a Sales Plan based on the market forecast and production capabilities. This will help decide the Production Plan which in turn will decide the Materials Plan and so on.

Table – 5.4: Preparing an Operating Plan		
S.No.	Plan	Details

1	Sales Plan	Based on Market Forecast [what market-share is feasible to capture] and the production capabilities.
2	Production Plan	Based on production capacity, Levels of learning, and achievable capacity utilization; sales forecast.
3	Materials & Inputs Plan	Based on Technical parameters; production-plan; supply conditions and prices
4	Financial Plan	Based on Capital structure, Interest costs etc.
5	Marketing Plan	Based on Sales Plan, Marketing Organization, Marketing strategies etc.

This process will help decide the technical coefficients for the major input cost estimation envisaged in the Profitability Statement as under

- Capacity utilization of each year from Y1 to Y5
- Materials cost per unit of output
- Utilities cost per unit of output
- Manpower cost per unit of output

These are direct costs. Then there are other costs like administrative overheads, depreciation, finance charges, marketing expenses etc.

You may arrive at a conclusion that capacity utilization will rise from 50% in Y1 to 75% to Y5 and the corresponding physical output will be 2 lac and 3 lac units respectively priced at Rs 10 each. (We ignore the rise in selling price just as we overlook the rise in the price of raw materials, labour, etc. to keep things simple.) The raw material, utilities and manpower cost is, say, is Rs. 4/, Rs. O.5/, and Rs. 1/ per unit of output. The administrative overheads are Rs. 3 lac per year in Y1, while marketing expenses are Rs. 2 lac and Rs. 3 lacs in Y1 and Y3 respectively. (You are selling many more units in Y5). Deduct all of the above cited cost from sales revenue and you arrive at gross profit. Please assume capacity utilization for Y2, Y3, Y4 and calculate gross profit for Y1 to Y5. Deduct all of the above cited cost from sales revenue and you arrive at gross profit. Please assume capacity utilization for Y2, Y3, Y4 and calculate gross profit for Y1 to Y5.

Financial Charges

Next, there are two charges. First, depreciation which means decrease in the value of assets – building, machinery, vehicle, etc., (not land) because of wear and tear and uselessness. You do not lose cash but you have to provide for money to replace the asset. You do this by providing for depreciation and deducting it from gross profit. We have discussed the method for calculating depreciation in a later chapter. The other charge is interest, which you pay on term-loan (loan against money required to set up business {we called it capital cost}, land, building, machinery, etc.), and on working capital loan.

Net Profit Tax

You deduct depreciation and interest from gross profit to arrive at net profit before income tax. Your income-tax liability will depend on the volume of profit and form of organization (proprietorship, company, etc. – and this is explained later.)

5.4. Means of Finance: The capital cost of the project is to be funded out of long term sources coming from [i] owner's sources, known as owner's equity and [ii] borrowed funds. In choosing the proportion between these two sources the following thumb-rules are used:

- The Promoter's Contribution must be more than 25 % of the Capital cost
- The Debt-to–Equity [DER] ratio shall be between1.5 to 2. [In Micro enterprises higher DER of say up to 2 is preferred; in small enterprises the preferred DER is around 1.75 and in medium enterprises it is near to 1.5 or even less. The DER is further refined by looking at the Debt-Service-Coverage-Ratio which is an indicator of the enterprise's ability to service the debt on a sustainable basis.

The final choice of DER is decided by the lending agency [Bank]; however at the stage of preparing the Business Plan tangible choice can be made. This choice will be illustrated through an example in the subsequent section.

Table-5.5: Patterns of Debt-Equity-Ratio

Scale of the enterprise	**Micro**	**Small**	**Medium**
Suggested DER	2:1	1.8:1	1.5:1
Debt [%]	66.00	64.00	60.00
Owners Capital [%]	34.00	36.00	40.00
Capital Cost [%]	100.00	100.00	100.00

The owners' capital is invariably more than the minimum promoter's contribution expected by the lending bank. Normally banks stipulate that 25 % is the minimum amount that should be raised by promoters themselves while the additional amount can be raised from their friends and associates. This gives some flexibility to the raising of the owner's capital, more so with respect to enterprises constituted as LLP or under the Companies Act.

- When the enterprises are constituted as proprietorship or partnership, it is difficult to distinguish between funds brought in by the promoters or their friends and associates.
- When enterprises are constituted as LLP or under the Companies Act [as One-Person-Company or as Pvt-Ltd-Company], the lender may stipulate that the minimum amount of 25 % should be brought in as equity capital while the rest can be brought in as Cumulative Preference Shares or as unsecured deposits.

Normally any amount injected in to the company as equity capital, cannot be taken back at any point of time. So a promoter would like to raise the equity capital only to the extent that is absolutely necessary. Besides keeping the equity capital lower enables him to have higher EPS (earnings per share) for a given level of operation and profitability. A promoter would be happy to raise preference shares, (Cumulative Redeemable Preference shares), which has a short life till its redemption. Raising funds as Unsecured-deposits also offers this benefit of cancellation once its utility is over.

Given a situation where a promoter has to raise Rs 40 lacs as owner's capital and where his promoter's contribution is pegged at Rs 25 lacs for a project being implemented under a private limited company, the promoters would be happy to raise equity capital of Rs 25 lacs and the rest Rs 15 lacs as combination of preference capital and unsecured deposits.

5.5. Financial Projections: These are illustrated through a case titled Triveni Enterprises Ltd in a box below. Box 5.1 illustrates computation of income. Operative expense, and profit before and after tax.

Box-5.1.

Case: Triveni Enterprises Ltd

Triveni Enterprises Ltd [TEL] plans to set up manufacturing facilities for special purpose printing

machinery with German collaboration. The tie-up envisages technical collaboration and purchase of critical machinery.

The company has acquired 5,000 sq. meters of built-up space from state industrial development corporation. The cost of the facility together with interest is payable in 20 equal half-yearly installments of Rs 1 lac each. The first installment is payable at the point of possession of the premises. It is estimated that the premises would need minor modifications which are estimated to cost Rs 10 lac.

Indigenous machinery worth Rs 30 lacs would be required. The imported machinery will be provided by the collaborator and the value is stipulated at Euro 70,000, FOB Dusseldorf. The costs of insurance, freight, customs duty, port-handling, inland transport and installation are estimated at Rs 10 lacs.

Technical collaboration fee is finalized at Euro 30,000. Three [3] Indian technicians are going abroad for training at the collaborator's plant for a period of 50 days. Their food and lodgings will be taken care of by the collaborator. However, they have to be given allowance of Euro 30 per person per diem towards local travel and incidental expenses. Their air-travel both ways will be borne by Triveni Enterprises Ltd. This is expected to be Rs 300,000 for all 3 persons. Three [3] foreign technicians are expected to come to India for a period of 50 days for commissioning of the plant, site supervision and training of local technicians. Their travel and per diem costs will be borne by the collaborator as per the agreement. However, their accommodation, food, local travel etc. will be the responsibility of Triveni. The cost on this account is estimated Rs 500,000.

The project requires miscellaneous fixed assets to the tune of Rs 20 lacs. The preliminary and pre-operative expenses of the project are estimated at Rs 10 lacs and Ra 15 lacs respectively. The prevailing exchange rate is Rs 80/1 Euro.

Table- A: Capital Cost of the Project

S.No.	*Cost Component*	*Rupee Cost Rs Lacs*	*Forex Cost in Foreign Currency*	*Total Rs Lacs (Exchange Rate = Rs 80/ Euro)*	*Remarks*

[1]	[2]	[3]	[4]	[5] = [3] + [4]x 80	
1	Land & Site Development	00.00	0.00	00.00	
2	Buildings & Civil Construction	10.00	0.00	10.00	
3	Plant & Machinery				
	c. Indigenous	30.00	0.00	30.00	
	d. Imported	10.00	70,000	66.00	
4	Technology Transfer				
	d. Technical Know-how fees		30,000	24.00	
	e. Cost on Domestic Technicians abroad.	3.00	1,500	4.20	
	f. Cost on Foreign technician in the domestic country	5.00	0.00	5.00	
5	Miscellaneous fixed Assets	20.00	0.00	20.00	
6	Preliminary & Pre-operative Expenses	25.00	0.00	25.00	
7	Contingency Provision			6.21	See Table-A2
8	Working Capital Margin			13.02	See Table-A5
	CAPITAL COST OF THE PROJECT			203.43	

Computation of the Contingency provision

The payment to the State Industrial Development Corporation is not likely to vary. The modification-cost is an estimate and hence we need to provide contingency provision. Since the modifications can be completed in a short-time, say less than 6 months, modest contingency of 5% is considered sufficient. . Since the imported machinery is finalized, contingency provision need not to be made. Indigenous machinery, miscellaneous fixed assets as well as preliminary & pre-operative expenses are all estimates. So, provision need to be made for all of them.

Under the head of technical collaboration, the collaboration fees, technicians per diem expenses etc. are all firm in foreign currency. So, there is no need for any provision for variation in the amount to be paid. However, the exchange rate is likely to change and hence provisions for variation need to be made. The domestic component of the costs under the head of technical collaboration are all estimates and hence provision need to be made for variations.

How do you decide the rate at which contingency provisions are to be made? There is no definite formula

or rule for this. The factors affecting it are [a] the duration within which the expenses are likely to be incurred; [b]the extent of firmness of the amounts, [c] the nature of the expenditure and the estimate. When the extent of firmness is very high, duration/ horizon of implementation is relatively short and the estimates are robust, there is no need for any contingency provision. When the horizon is long, or expenses are not firmed up or the estimates are not robust we need to make appropriate provisions on each of the items. When the horizon is long, a thumb-rule is to use the expected inflation or the likely movement of the appropriate index during the horizon.

In the case of TEL the implementation period is less than a year and hence contingency has been provided at 5 % on domestic costs. On Forex cost only currency variation is being considered; this is not likely to be more than 3%; however provision has been made at 5 %..

Table-A2: Estimation of Contingency Provision

No.	*Cost Component*	*Amount that is subject to variation*		*Contingency provision*		
		Rs Lacs	*Euro*	*% Rs*	*% Euro*	*Rs Lacs*
	[1]	*[2]*	*[3]*	*[4]@*	*[5]@*	*[6]= [2]x[4] + [3]x[5]x80*
1	*Land & Site Development*	*0.00*	*0.00*			*0.00*
2	*Buildings & Civil Construction*	*10.00*	*0.00*	*0.05*		*0.50*
3	*Plant & Machinery*					
	e. Indigenous	*30.00*	*0.00*	*0.05*		*1.50*
	f. Imported	*10.00*	*70,000*	*0.05*	*0.05*	*0.54*
4	*Technology Transfer*					
	g. Technical Know-how fees	*0.00*	*30,000*		*0.05*	*0.02*
	h. Cost on Domestic Technicians abroad.	*3.00*	*1,500*	*0.05*	*0.05*	*0.15*
	i. Cost on Foreign technician in the domestic country	*5.00*	*0.00*	*0.05*		*0.25*
5	*Miscellaneous fixed Assets*	*20.00*	*0.00*	*0.05*		*1.00*

6	*Preliminary & Pre-operative Expenses*	*25.00*	*0.00*	*0.05*		*1.25*
	Total					*6.21*

Means of Finance:

As discussed the criteria for deciding the means of finance are

- *Promoters' contribution should be more than 25 % of Project cost. In this case Project cost is Rs 203.43 lacs. Hence the Promoters' contribution should be more than Rs 51 lcs.*
- *The DER shall not exceed 1.5: 1. This makes the maximum loan to be shall be Rs 122 lacs.*

Let us keep the Term Loan amount at Rs 120 lacs tentatively. Based on this we shall work out the profitability statement. Later on looking at the DSCR and the profitability of the project the quantum of Term loan can be finalized. Let us also assume the interest rate of the Term loan shall be 12 % p.a. [unless stated otherwise in the case] and also assume the repayment period to be 6 years starting from the second year of operation.

The proposed Means of Finance shall be

- *Owners Capital/Share Capital & others Rs 83.43*
- *Term Loan @12 % p.a. Rs 120.00*

The owners' capital works out to Rs 83.43 lacs. This can be conveniently split up into

- *Equity capital Rs 60 lacs*
- *Preference Capital Rs 15 lacs [Redeemable after 8 years and carrying dividend not more than 12 % p.a.]*
- *Unsecured Deposits Rs 8.43 lacs [Interest not exceeding 12 % p.a, and not refundable till the loan is repaid I full]*

Operating Expenses of TEL

With the facilities planned, TEL would be capable of producing 25 units of printing machinery. This can be considered as its 100 % capacity. In the first year the company hopes to achieve 40 % capacity utilization [10 units]; it would gradually build up to 15 units in second year, 20 units in the third year and so on.

The sales realization is expected to be Rs 30 lacs per machinery unit net of taxes. Taxes will be separate. Most of the sales will be on credit and the expected collection period is 30 days.

Materials and other procured inputs per machinery unit are valued at Rs 8 lacs. Power cost in the first year is expected to be Rs 1.50 lacs p.m.; going up to Rs 2.00 lacs p.m. in the second year and Rs 2.00 lacs p.m. thereafter. During the first year the company would need 30 skilled workers, 10 supervisory personnel and 5 managerial personnel. The salary range would be Rs 20,000 p.m., Rs 30,000 p.m. and Rs 50,000 p.m. respectively. The manpower strength would be 30/10/5 in the first year; it would go up to 40/10/5 in the second year and 50/12/6 thereafter. Other overhead arising out of the establishment costs is given as Rs 18 lacs in the first year , Rs 24 lacs in the second year and Rs 30 lacs in the third year.

Depreciation is to be provided at 10 % {Straight Line Method) on the machinery and miscellaneous fixed assets. Preliminary expenses are to be written off at 10 % per annum. Term loan interest shall be 12 % p.a. and working capital interest will be 14 % p.a. Marketing expenses are estimated at Rs 20 lacs in Year-1, Rs 30 lacs in Year-2 and Rs 40 lacs per annum thereafter. The cost of marketing manpower is already included in the managerial overheads.

The CEO indicates that to ensure continuous production, it is necessary to keep one month's stock of input materials as inventory. It is sufficient to keep work-in-process inventory at 15 day. The product is specialized machinery made to customer orders; hence they are shipped immediately on production. There will be no finished goods inventory at any point of time. The CEO is sure of getting 1 month's credit on all materials and procured inputs. The credit period is 30 days and the CEO is confident of receiving the sale-proceeds within this period.

Table-A3. Estimation of Profitability Statement

	Unit	*Y1*	*Y2*	*Y3*		
Production Capacity	*Nos.*	*25*	*25*	*25*		
Capacity Utilization %	*%*	*40*	*60*	*80*		
Production in Units	*Nos.*	*10*	*15*	*20*		
Total Material cost	*Rs L*	*80.00*	*120.00*	*160.00*		
Utilities cost	*RsL*	*18.00*	*24.00*	*30.00*		
Wages & Salaries	*Rs L*	*108.00*	*138.20*	*163.20*		
Managerial Salaries	*Rs L*	*30.00*	*30.00*	*36.00*		
Other Overheads	*Rs L*	*20.00*	*25.00*	*30.00*		
Depreciation	*Rs L*	*12.10*	*12.10*	*12.10*		*See Table-A6*
Prelim. Exps. written off	*Rs L*	*1.00*	*1.00*	*1.00*		

Cost of Production	*Rs L*	*267.10*	*349.30*	*432.30*		
Interest on Term Loan	*Rs L*	*14.40*	*13.80*	*12.00*		*See Table-A7*
Interest on Bank Loan	*Rs L*	*3.80*	*5.47*	*7.14*		*See Table-A5*
Marketing Exps.	*Rs L*	*20.00*	*30.00*	*40.00*		
Total Operating Costs	*Rs L*	*305.29*	*398.57*	*491.44*		
Total Sales	*Rs L*	*300.00*	*450.00*	*600.00*		
Profit Before Tax	*Rs L*	*-5.29*	*51.43*	*108.56*		
Tax Provision @25 %	*Rs L*	*0.00*	*11.54*	*38.67*		*See Table-A8*
Profit After Tax	*Rs L*	*-5.29*	*39.90*	*69.88*		
Cash Accrual	*Rs L*	*7.81*	*53.00*	*82.98*		

Table-A4:Calculation of Manpower Cost

Class of Manpower	*Y1*			*Y2*			*Y3*		
	No	*Salary p.m*	*Rs Lacs p.a*	*No*	*Salary p.m*	*Rs Lacs p.a*	*No*	*Salary p.m.*	*Rs Lacs p.a*
Workers	*30*	*20,000*	*72.00*	*40*	*20,000*	*96.00*	*50*	*20,000*	*120.00*
Supervisors	*10*	*30,000*	*36.00*	*10*	*30,000*	*36.00*	*12*	*30,000*	*43.20*
			108.00			*132.00*			*163.20*
Managers	*5*	*50,000*	*30.00*	*5*	*50,000*	*30.00*	*6*	*50,000*	*36.00*
Total	*35*		*138.00*	*45*		*168.00*	*68*		*199.20*

Particulars	*Norm of Estimation*		*Basis of Valuation*	*Y1*	*Y2*	*Y3*
Materials Inventory	*30 days*	*[1]*	*At cost*	*6.67*	*10.00*	*13.33*
Work-in-Progress	*15days*	*[2]*	*0.5 x Cost of Production*	*11.13*	*14.55*	*18.01*
Finished Goods	*NIL days*	*[3]*	*Cost of*	*0.00*	*0.00*	*0.00*

			Production			
Receivables	*30days*	*[4]*	*Selling Price*	*25.00*	*37.50*	*50.00*
Creditors	*30 das*	*[5]*	*At cost*	*6.67*	*10.00*	*13.33*
Current Assets		*[6]= [1 to[[5]]*		*42.80*	*62.05*	*81.35*
Current Liabilities = *Creditors*	*30 days*	*[7]= [1]*		*6.67*	*10.00*	*1333*
Net Working Capital	*CA-CL*	*[8]=[7]-[6]*		*36.13*	*52.05*	*68.01*
Bank Finance	*75 %*	*[9]*		*27.10*	*39.04*	*51.01*
Interest on Bank Finance @14 %				*3.79*	*5.47*	*7.14*
Working Capital Margin	*25%*	*[10]*		*9.03*	***13.01***	*17.00*

Normally, for a new and stand-alone project, the WC Margin of send year of operation is taken to form part of the Capital cost of the project. In this case it will be Rs 13.01 lacs.

Table-A6:Depreciation [SLM]. ***[All figures in Rs lacs]***

Assets	*Original Value*	*Depreciation*	
		Rate	*Rs L*
Bldgs	*10.00*	*5%*	*0.50*
P&M	*96.00*	*10%*	*9.60*
MFA	*20.00*	*10%*	*2.00*
Total	*126.00*		*12.10*

Table-A7:Loan Amortization Schedule						
Proposed Means of Finance Equity Capital : 83.43 Rs Lacs Term Loan : 120.00 Rs Lacs						
Repayment Schedule: 6 years [12 Half yearly] starting from end of 2nd year of operation						
	Y0	*Y1*	*Y2*	*Y3*	*Y4*	*Y5*
Opening Balance	*0.00*	*120.00*	*120.00*	*110.00*	*90.00*	*70.00*
Availed during the year	*120.00*	*0*	*0*	*0*	*0*	*0*
Repaid during the year	*0*	*0*	*20*	*20.00*	*20.00*	*20.00*

Closing Balance	*120.00*	*120.00*	*110.00*	*90.00*	*70.00*	*50.00*
Interest @12% on Average Balance	*7.20*	*14.40*	*13.20*	*10.80*	*9.60*	*7.20*

Table-A8: DSCR Calculation

DSCR [Debt-Service-Coverage-Ratio] is a measure of the entity's ability to service the term loan (in terms of principal and interest payment on a year-on-year basis). It is a ratio of the amount available with the entity before paying anything to the term lender after meeting al other expenses vis-à-vis the amount payable to the term-lender. The numerator will be cash accrual plus the term-loan interest and the denominator will be the sum of term-loan interest and principal instalment. A ratio of 2 indicates that after meeting the obligations to the term-lender the entity is left with adequate surplus to meet its growth needs. Any ratio less than 2 is considered inadequate for healthy operations of the entity.

This ratio also helps to readjust the repayment schedule so that healthy operations of the entity is ensured. If DSCR is less than then one can either delay the commencement of the term-loan repayment or spread the repayment over a longer duration or both.

Cash Accrual	*[a]*	*7.81*	*53.00*	*82.98*		
Term Loan Interest	*[b]*	*14.40*	*13.20*	*10.80*	*9.60*	*7.20*
Principal Repayment	*[c]*	*0*	*20.00*	*20.00*	*20.00*	*20.00*
Funds available	*[a] +[b]= x*	*22.21*	*66.20*	*93.78*		
Payable to Bank	*[b] + [c]= y*	*14.40*	*33.20*	*30.80*		
DSCR	*x / y*	*1.54*	*1.99*	*3.04*		

Table-A9: Tax Calculation# ***All figures in Rs lacs.***

Particulars	*Y1*	*Y2*	*Y3*	*Y4*	*Y5*	*Y6*
PBT	*-5.29*	*51.43*	*108.56*			
Less: Carried forward losses if any. [-]	*0.00*	*-5.29*	*0.00*			
Taxable Profit	*-5.29*	*46.14*	*108.56*			
Tax @ 25 %	*0.00*	*11.52*	*27.14*			

Table-A10: Cash-flow Statement ***All figures in Rs lacs***

	Y0	*Y1*	*Y2*	*Y3*	*Y4*	*Y5*
a. Source of Funds						
A1. Increase in share capital	*83.42*	*0.00*	*0.00*	*0.00*		
A2. Surplus from operations EBIDT	*0.00*	*22.21*	*7833*	*133.66*		
A3. Increase in Term Loans	*120.00*	*0.00*	*0.00*	*0.00*		
A4.Incr.in Bank Borrowings	*0.00*	*27.10*	*11.94*	*11.97*		
A5. Other sources	*0.00*	*0.00*	*0.00*	*0.00*		
Total Sources	*203.42*	*49.30*	*90.28*	*145.63*		
b. Use of Funds						
B1. Increase in Fixed Assets	*190.00*	*0.00*	*0.00*	*0.00*		
B2. Increase in current assets	*0.00*	*42.80*	*19.26*	*19.29*		
B3. Decrease in term loans	*0.00*	*0.00*	*20.00*	*20.00*		
B4. Decrease in bank Borrowings	*0.00*	*0.00*	*0.00*	*0.00*		
B5. Interest on Term loans	*0.00*	*14.40*	*13.20*	*10.80*		
B6. Interest on Bank borrowings	*0.00*	*3.79*	*5.47*	*7.14*		
B7. Provision for tax	*0.00*	*0.00*	*11.54*	*27.14*		
B8. Other uses	*0.00*	*0.00*	*0.00*	*0.00*		
Total Uses	*190.00*	*60.99*	*69.46*	*84.37*		
c. Surplus						
C1. Opening Balance	*0.00*	*11.50*	*35.38*	*88.97*		
C2. Current Surplus	*13.42*	*-11.69*	*20.82*	*61.25*		
C3. Closing balance	*13.42*	*1.74*	*22.56*	*83.81*		

Internal Rate of Return (IRR): *IRR is a measure of the return the project is offering over the total investments made into the project with due considerations to the time-value of money. It considers the investment made in the capital assets of the project [B] and the investments made in current assets[C] are shown in separate columns. Their sum is shown in Column D; this is the total investment into the project. The benefits from the project is measured in terms of EBITD and shown in column E.*

Table-A11: Calculation of IRR

Year	*Increase in Capital Assets*	*Increase in Current Assets*	*Total Outflow*	*Inflow*	*Salvage Value*	*Net Inflow*	
A	*B*	*C*	*D*	*E*	*F*	*G*	
Y0	*190.00*	*0.00*	*190.00*	*0.00*	*0.00*	*(-)190.00*	
Y1		*42.80*	*42.80*	*22.21*	*0.00*	*(-)20.59*	
Y2		*19.26*	*19.26*	*78.33*	*0.00*	*59.08*	
Y3		*19.29*	*19.29*	*133.66*	*0.00*	*114.37*	
Y4				*133.66*	*0.00*	*133.66*	
Y5				*133.66*	*0.00*	*133.66*	
Y6				*133.66*	*0.00*	*133.66*	
Y7				*133.66*	*0.00*	*133.66*	
Y8				*133.66*	*0.00*	*133.66*	
Y9				*133.66*	*0.00*	*133.66*	
Y10				*133.66*	*90.85*	*224.51*	*IRR = 37 %*
	from cash-flow	*from cash-flow*	*B + C*	*From Cash-flow*	*Salvage value*	*E+F- D*	

Salvage value = Current Assets + 5 % of fixed assets = 81.35+5% of 190 = 90.85

Inflow = EBIDT from Cash-flow statement

In order to account for the time-value of money the investments and benefits are shown in respective years of their occurrence. The life of the project is taken to be 10 years. The EBITD for years from 4 to 10 are assumed to the same in year 3. At the end of 10 years the salvage value of the project is also taken into account. Current are continuously rolled over and they are expected to fetch the same value. The long-term assets are expected to fetch only 5 % of the original value. These are shown as salvage value in the 10 year which adds to the kitty of benefits from the project. Column G shown the net cash -flow of each year. The net cash flow is discounted to obtain the IRR of the Project.

In this project the IRR is seen to be 37 %. This means the project as per the assumptions made therein is highly profitable. Normally this is to be compared to the overall cost of capital envisaged in the project.

The overall cost of capital shall be the weighted average cost of the equity capital, the term loans, and the bank finance engaged in the project. The term loan cost is 12 % and the bank finance is costing 14 % as per data. The cost of equity capital is not given. Even if we assume it be 25 % (normally equity capital is risk bearing and hence more costly than others), the weighted average cost of funds invested in the project would not exceed 20 %. On this ground this project is worth going ahead.

Case-lets

1. ***Veena Tandon is setting up a boutique where state of art products of interest to the young and upward mobile ladies will be on display. She has budget Rs 40 lacs as the budget for this project. Can she get financial support from the bank by way of loan or in any other form?***
2. ***Protima Shanbaug is creating a gym exclusively for ladies and this will be located in a posh locality of the city. She has estimated a capital outlay of Rs 50 lacs. What could be an optimal means of finance for this project?***
3. ***Harish Mehta has been making toothbrushes for a leading brand of toothpaste in the country. Earlier manufacture of toothbrushes was reserved to small scale sector. Now such restrictions do not exist. He wants to expand his capacity in a big way; besides he wants to bring in the most sophisticated machinery for toothbrush making so that he can produce the premium brands of toothbrush. His team has prepared a project report where the project cost is estimated at Rs 300 lacs. What could be the optimum means of finance for this project?***

SAQ-5.1

Mukesh Desai is planning a project to make automobile components. He has estimated the project cost to be Rs 40 lacs. Since this is his first project, he wants to bring down the project cost in order to minimize his investment and the related risks. Can you suggest some ways in which he can bring down the Capital cost of the project?

SAQ-5.2

Rupesh Aggrawal is planning a Roller Flour Mill where wheat will be milled into wheat flour (Atta,

Maida etc.). These products are purchased by bulk consumers like makers of bread, biscuits, confectionery etc. He has opted for a medium size plant to minimize the capital cost and his investment. He is aware that the value addition in a roller flour mills business is low and that he needs to invest substantial funds in working capital. Can you think of some ways to minimize the working capital required for operations? Your advice will be highly valued by Rupesh Aggrawal.

UNIT

6

Chapter-6

ASSESSMENT OF FEASIBILITY AND APPRAISAL

Chapter Objective: This Chapter is designed in inculcate among the participants

- The knowledge and skills to analyze and evaluate the feasibility of the business proposal in terms of technological, marketing, financial and overall terms.

Learning Outcome: On completion of the Chapter, the participants will be able to

- Evaluate and interpret the feasibility of the business proposal in terms of technological, marketing, financial and overall considerations.

	Index of Chapter-6	
6.1.	Types of Feasibility Studies	
6.2.	Financial & Overall Feasibility.	
	Box-6.1: Sensitivity Analysis using Triveni Enterprises Ltd	
	Annexure-6.1: Check-list for Technical Feasibility	
	6.2: Check-list for Market Feasibility	
	Box-6.1: Startups and Funding Concerns of Startups	

6.1. Types of feasibility studies: It is possible to think of feasibility in separate compartments like market feasibility, technical feasibility, financial feasibility etc. and also the overall/

comprehensive feasibility of the project. The basic concerns in each of these can be looked at in certain basic terms; these are listed below:

- Market feasibility: The focus will be on the markets demand, customers and how their needs are fulfilled. The detailed elements will be
    - Products, application, Market segment, customers, market size, current suppliers, demand-supply gap, etc.
    - Prevailing prices, quality expectations of the customers, competition, unique characteristics of the proposed product, marketing strategy, what is the expected market share, Pricing, distribution, promotion, etc.
    - Question every assumption made in the planning of marketing strategy and check the ability of the project to survive

- Technical feasibility: here the concern is more on the conversion process and the following factors
    - Inputs availability (quantity and quality), inputs costs, suitability of inputs etc.
    - The technology/process of conversion, the costs of technology, the costs of conversion, source and reliability of process/technology, compatibility of technology to the local environment, etc.
    - Availability of skilled operatives, their training, costs etc.
    - Ability of the entrepreneur and the organization to manage the entire process
    - Whether the final output will match with the quality and quantity required by the customers etc.
    - Question every assumption made in the technical evaluation and see if the project is able to survive.

6.2. Financial and overall feasibility: Financial feasibility looks at the project in terms of the cost estimates, in terms of the means of finance, in terms of profitability and in terms of sensitivity analysis.

- Cost estimates: It is good to review all the cost estimates and the assumptions made with respect to them

- Review the project cost. Can the project be managed in lesser costs? Or would it need higher costs to execute the project
- Review the costing of all the inputs and the costing thereon.

- Means of finance:
  - Check the basis of means of finance. Can the project get more external funds? Can the promoters raise the quantum of funds envisaged? Do they have any sources to manage exigency situations?
  - Does the profitability of the project permit the quantum of debts envisaged? Is the repayment schedule of the term loan appropriate vis-à-vis the expected cash-flows?
- Profitability: The profitability of the project is based on a series of assumptions.
  - How reliable are those assumptions?
  - What is the profitability of the project with this set of assumptions? See Gross Profit margin, Net Profit Margin, Breakeven level, Cash-break-even level etc.
  - What is the IRR of the project vis-a-vis the Cost of capital for the overall investment made in the project?
- Sensitivity Analysis: Find out the critical factors that affect the profitability of the project [example: selling price, input prices, capital investment, capacity utilization etc.]. Most of these are subject to variations to the market conditions. Identify which of these are more vulnerable in the near future. Also try to estimate the extent of variation of each of them.
  - Rework the profitability indicators [GPM, NPM, Breakeven Level, DSCR, IRR etc.] with the likely scenarios of variations. This will give us the sensitivity of the project's viability to the variations.
  - As an illustration the sensitivity analysis of the Case Triveni Enterprises is worked out in a separate Box below

Box-6.1. Sensitivity Analysis of Triveni Enterprises Ltd.[TEL]

Breakeven Analysis;

Breakeven analysis is about exploring the answer for the question: How much of the product should you

produce to cover all the costs? For a single product unit the answer is obtained by solving the following equation.

Profit = Save value – fixed costs – variable costs

= P x Q - F - V x Q. where P is the price per unit, Q is the quantity sold, F is the fixed costs of the enterprise and V is the variable costs per unit. At breakeven level the profit will be zero because this is the transition point from profit to loss or vice versa. By solving this equation the breakeven quantity Q can be expressed as*

Q = (F) / (P- V) no. of the products in a year.*

The numerator is the fixed costs and the denominator is the difference between the selling price and the variable cost per unit. In the case of Triveni Enterprices Ltd let us assume that material costs and utility costs are variable and the rest of the costs all add up to the fixed cost. Each year the capacity planned is different and the costs are different. So the breakeven level for each year will be different. The breakeven nos. is very often expressed as a percentage of the production capacity plant. This analysis is shown in the Table below

	Units	*Y1*	*Y2*	*Y3*
Contribution Margin per unit [(Sale Value – variable costs)/ (no. of units sold)]	*Rs lacs*	*20.20*	*20.40*	*20.50*
Total fixed costs	*Rs lacs*	*207.29*	*254.57*	*301.44*
Fixed Costs Excluding Depreciation & Amortization [used to arrive at the Cash breakeven]	*Rs Lacs*	*194.19*	*241.47*	*288.34*
B-E Level for total fixed costs	*% of capacity*	*41.05*	*49.91*	*58.82*
B-E level for cash break even	*% of capacity*	*38.45*	*47.35*	*56.26*

To explore sensitivity analysis the entire financial projections should be prepared on an appropriate spread-sheet with formula connecting all variables and parameters. The one can vary any of the variables ad see the impact on parameters like B-E level, IRR, Net profit margin etc.

Gross Profit Margin[GPM] and Net Profit Margin[NPM]

Gross Profit Margi = [Gross Profit/Net Sales} x 100
Net Profit Margin = [PAT]/ [Net Sales]x 100

These are indicators of profitability of the business. If these are too low, then the business is not attractive. For TEL the profit margins at the base-case scenario are computed as under

		Y1	*Y2*	*Y3*
Value of Sales		*300.00*	*450.00*	*600.00*
Gross Profit		*-5.29*	*51.43*	*108.56*
Net Profit		*-5.29*	*39.90*	*81.42*
Gross Profit Margin	*[GrossProfit/Sales]x100*	*loss*	*11.43%*	*18.09%*
Net Profit Margin	*[NetProfit/Sales0x100*	*loss*	*8.57%*	*13.57%*

Sensitivity Analysis

In the case of TEL such as exercise is made with 5 % down ward slide in the selling price. The results are tabulated below.

B-E Level for total fixed costs	*% capacity*	*48.15*	*58.03*	*68.78*
B-E Level for cash breakeven	*% capacity*	*45.10*	*5542*	*65.79*
Impact on IRR	*%*	*Declined from 37 % to 28 %*		
Gross Profit Margin at reduced priced	*%*	*Loss*	*6.81%*	*13.83%*
Net profit Margin at reduced price	*%*	*Loss*	*6.29%*	*10.37%*

The reduction in selling price by 5 % has the impact of increasing the break-even levels as well as reducing the Profit-margins significantly. The IRR also has been reduced substantially. Such sensitivity analysis can be carried out for changes in the values of critical variables. This type of analysis will help

us assess the robustness of the project for any variations in the market variables.

Case-lets:

1. ***Ajay Duggal is planning to set up a restaurant on the College Street of the city. Is there enough market in that location and would his restaurant survive?***
2. ***Meenakshi Sinha is planning to start pastry shop near to her house. Will she get adequate response in this area to make the proposal viable?***
3. ***Prashant Mehta is planning a facility to make 4-colour offset printing machines. What is the technical feasibility of the project? What is the overall viability of the project?***

SAQ-6.1

Ajay Duggal, finds that the break-even level operation of his restaurant is relatively. How can he bring down the break-even level?

SAQ-6.2.

Prashant Mehta on preparation of the Business Plan finds that the IRR is 18 %. Is there any meaningful of increasing the IRR? Your suggestions will be highly valued.

Annexure-6.1: Check-list for Technical feasibility

- Process/Know-how/Technology

- Is it state-of-art?
  - If it is behind those available with competitors, how would you cope with competition?
  - If it is current with those available with competitors, you can presume to be safe.
  - If it is more advanced/different/unique in comparison with those in the market, then you need to take extra-care to ensure it works well
    - Has it been tested in the local/similar market at commercial scale?
- Sources of Know-how/Equipment/Systems
  - If the source is proven in the market and well-known, you can presume to be safe.
  - If not, you need to verify it is workable
    - in the proposed ambience
    - with the available inputs
    - with the skill level of operators available

- How does the know and equipment compare with those employed by competitors in terms of
  - Capital cost per unit
    - If high on capital cost per unit, then have you studied the impact on competition? Is the market big enough to absorb the extra production to beat competition.
  - Operating cost per unit.
    - Is the higher operating cost can be overcome & justified by better quality?
- What is the status of
  - maintenance and service support for the new systems/process
  - spare-parts and consumables availability
- what is the expected life
  - of the systems/equipment
  - of the technology/process/
- In how many years do you think the process/technology is likely to be replaced be better one? Would you be able to recover your investment before that?

- Facilities and lay-out:
    - What are the prospects of Make or Buy partly or fully?
    - If not immediately is it possible in future?
    - By out-sourcing what advantages are possible
        - Reduction in capital cost
        - Better quality
        - Speed of implementation
        - Reaching the customer faster
    - What impact such a strategy will have on your costs – capital and operating?
- Quality Assurance
    - How important is the quality of the proposed products to the customer
    - How do you compare your Quality initiatives vis-à-vis those of competitors?

Annexure-6.2: Check-list for Market Feasibility

- How do you rate your product vis-à-vis those in the competition?
    - Superior/Comparable/Inferior
    - List the attributes of comparison and rate on each attribute.
- What is the USP of your product?
- How do you plan to reach the customer [Distribution]?
- How would you maximize the benefits to the customer?
    - Can you minimize his inventory?
    - Can you help him minimize rejections at his works?
    - Can you align your banking with his banking to help seamless transactions?
- How can you expand your clients and territorial reach?
- Can you engage digital marketing beneficially?
- How can you minimize the cost of logistics continuously?
- Define your market segment precisely
- Work-out your Marketing-Mix carefully
    - Product

- Price
- Place
- Promotion

- Work-out a clear cut pricing strategy to face the competition.
    - Develop a customer-relationship-management [CRM] strategy.

Box-6.1: Startups and Funding Concerns of Startups		
Definition	• Any new project/venture with o Some innovation and o Offering better value proposition to the consumers • Innovation need not be technical • Better value proposition could be through o New technology leading to better performance /quality/economy etc. o New material leading to saving in cost/ease in manufacturing etc. o New process leading to savings in any form. o Better design leading to more comfort to the customer.	
Examples	• Photo-voltaic cells for Electric Vehicles – more eco-friendly and cost effective. • Urban waste-water recovery and re-cycling system • Immunotherapy for cancer treatment • Water-softener for urban house-holds- less wasteful of water and cost-effective	
Stages of Startup and Funding Concerns		
Stage-1: Problem-Solution Fit	• What problem am I trying to solve? • Do I have an effective solution to it?	• Risky stage. Commercial funding will not be available. • Research grants/startup funds from Govt and Research Institutions could be available
Stage-2: Build Minimum Viable Product	• Objective : To establish the facility with minimum capital investment/ Time to execute • Outcome: Prove demand/ learn about customer behavior / manage with minimum risk • This is proof of the concept and product. Keep selling & perfecting the idea and the product	• Predominantly risky. • Funding sources predominantly same as in Stage-1. • Angel Funds may consider selectively.
Stage-3:	• Try to retain the customers. The	• Based on customer-

Product-Market Fit	more you retain, the higher is the product-market fit. • Do a survey to assess the customer satisfaction and comfort	feedbacks Angel Funds and Venture Funds would be interested in funding.
Stage-4: Build Scale	• Build commercial scale operations	• Since proof of concept has already been established and customers have started buying, risk of the project has come down drastically. • Angel funds, PE Funds, Venture Funds and Banks would be willing to finance
Stage-5: Maturity	• The business has reached stage of normal business [it is no more startup] • Time to think of diversification /harvesting /exiting. • Promoters may explore: What next?	• This is the stage when Angel Funds, VC funds and PE Funds would be exiting the business. Good time for public issue. • Promoters may try to exit at this stage as the business has become conventional.

[Developed by EDII Team]

Chapter-7

PLANNIG FOR SUCCESSFUL PROJECT-LAUNCH

Chapter Objective: This Chapter is designed to inculcate among the participants

- The knowledge and skills to compile all the information from all aspects, evaluate strategically and design a plan for successful launch of the business.

Learning Outcome: On completion of this Chapter the participants will be able to

- Evaluate the business proposal strategically and give final shape to the launch of the business proposal.

7.1. Meaning of Success in Project-Launch: A project-launch is considered successful when the project implementation happens smoothly as planned and the project takes off to reach breakeven level as well as sustainability smoothly in a systematic manner. This can happen only when all the internal and external factors have been visualized appropriately and planned carefully. Such idea situations seldom exist; but adequate and careful planning can minimize glitches and help towards fair amount of success. In any project implementation, there are many

external factors over which the entrepreneur may not have full control. These factors require extra-care and attention at the stage of planning. Internal factors pose less challenges but they too demand adequate attention to ensure effective implementation. The following sections attempt to look at some of the common strategies which could be helpful project implementation.

7.2. Stages of the Project: The first stage in the evolution of a project can be called the ideation stage. The entrepreneur gets an idea of a business and this slowly takes the shape of a project. This process can also be called project identification. In many situations, the idea needs to be tested through the process of proto-type development. This is the process of establishing the proof of the concept. This process gives confidence to the entrepreneur about the idea/concept and broad contour of the product or service envisaged. The second stage is about formulation of the idea/concept into a project wherein the entrepreneur explores the resources required to convert the idea/concept into a tangible and sustainable system capable of delivering the products/ services to the customers on a continuous basis. The third stage is the evaluation stage where the entrepreneur evaluates the feasibility of the whole proposal. He needs to be convinced about the feasibility first; then he would need to convince the feasibility to a whole range of persons and organizations who would also be participating in the project in some form or other. The fourth stage is where the entrepreneur starts mobilizing the resources to create the system that delivers the products/services. This is the implementation stage. The process of business planning is a combination of the stages of formulation, evaluation and implementation.

It may be mentioned that these stages do not exist in water-tight compartments. There is always a fair overlap of these stages. We define them in separate conceptual verticals only for our understanding.

The project implementation stage commences when the entrepreneur, after being convinced about the feasibility of the project, starts committing resources to create the facilities required in the project. When all facilities are in place and when the project commences commercial production, we say the implementation is complete. The time duration between the commencement and commercial production is generally referred to as the implementation period. The implementation period is characterized by nil revenue; only capital expenditures will be happening.

From the point of commercial production, the project may take some more time to achieve the level of breakeven level of production. This time period is known as the gestation period of the project. This period is characterized by some revenue, but not adequate to cover the operating expenses.

7.3. Slippage in Project Implementation and Impacts: Despite meticulous planning unforeseen factors/reasons could cause slippages in project implementation. Some of the probable situations and their consequences on the economics of the project are described below.

Table-7.1: Probable Situations and Impacts

Situation	Possible Reasons	Immediate Impact	Long-term Impact
Delay in Commercial Production	• Equipment arrived late/Commissioning problem • Operators not ready • Utilities not ready • Input materials not ready	• Increase in Pre-op Exps. • Increase in project cost.	• Needs to raise additional funds. • Increase in Breakeven level • Decrease in viability
Increase in Gestation period	• Technical issues: Production low • Technical issues: Quality poor • Tech .issues: Quality and production low • Market awareness low: inadequate orders to execute	• Mounting cash losses	• Will need to infuse extra funds to cover cash losses. Other working capital will be eaten away. • If the situation persists, operation will collapse; entity will become sick

Generally banks will be slow in reacting to situations of over-run or continuing cash losses; so the entrepreneur has to resort to his own resources to bring in fresh funds. If the project is the maiden project of the entrepreneur and he/she has limited access to alternate resources, it could pose serious challenges on the entrepreneur.

7.4. Some Strategic Tips in planning the Project Launch: Give below is a list of strategic tips engaged by various entrepreneurs while launching their projects

1. Market the product first; then get into making it: Rakesh was a salesman selling plastic floor-mats. He sold floor-mats to retail outlets in Gujarat. His products were made in Bhivandi and Kalyan in Maharshtra. The sector was unorganized and did not operate on brands. What was important was the relationship the salesman had with the retail-outlets on one side and the manufacturers on the other side. Rakesh did this business for almost 5 years in this manner. He knew every retail-outlet intimately and he knew many manufacturers closely. He observed where the machines came from, their makes, their features and problems. After 5 years when he had gained enough confidence on the business he created his own factory in Gujarat and supplied from there.

2. Begin with an assured market: Mahesh Vyas started a facility to make optical lenses out of imported ophthalmic blanks. He had a technical tie-up with an American company for machinery, raw-materials and 100 % off-take of the production. All he needed to do was create the facilities. The moment the facilities were ready, the raw-materials arrived under a letter of credit; once the production was completed the goods were exported under the letter of credit. After 3 to 4 years, the collaborator agreed that Vyas could export 25 % of the production on his own.

3. Out-source the production Initially; Get into making after capturing the market: Ashish Agarwal, after studying post-graduation in Germany came back to India and had the idea of making ready-to-eat snack-foods in hermetically sealed packets in an automatic machine to be imported from Germany. The project cost was Rs 200 lacs. His proposal was declined by a bank who considered the project to be too risky as a consumer product. After few months he came to know that a similar machine from the same manufacturer was installed near Delhi doing the same business. He also came to know that the plant at Delhi was operating at 30 % capacity utilization. Ashish approached them to make the product under his brand name. It suited them since their idle capacity was getting utilized. For Ashish, the passion was marketing the product. He marketed the product in western India. He thought of his own plant only after 3 years when he had significant market under his control.

This strategy has an additional advantage. It enables the firm to keep its capital costs and overheads (also the risks) to the minimum level in the beginning. It gets into manufacturing only if the market is favorable.

4. Create Awareness in the market through seeding, before the actual production comes out. This is a strategy employed by many firms when they are introducing a new product in the market. While the project may be in the planning stage itself, the firm establishes a marketing organization and starts marketing the product creating awareness and demand in the market. The initial products, obviously are imported ones. When the domestic production comes out, the market is already primed and ready to accept the same.

5. Start small and expand when the market is ready: Many firms engage this strategy. Initially a small capacity is established. Once the market is used to the product the firm expands its capacity to fulfill the demand of the market.

7.5. Conclusion: The strategic-tips above and the case-lets lead us to some simple insights.

- During implementation period the firm does not make any revenue; it only sees expenses, both capital and revenue in nature. So, it is important that in any business planning it is desirable to make the implementation period as short as possible. If the entrepreneur can create auxiliary income during this period it would be of great relevance to the sustainability of the firm.
- During the gestation period there is income, but invariably the income would be less than the operating expenses. Here too, it is desirable to keep the duration of the gestation period as short as possible. Prospects of auxiliary income must be explored.
- In a competitive environment, market and the customers are the most important factors. So all strategies must be focused on capturing and controlling the market at the earliest point in time.
- However systematically one may plan the project implementation, there can be unexpected slippages. So entrepreneurs should be prepared for additional capital outlays due to project delays or cash losses due to technical or marketing

glitches. In this context, the idea of generating auxiliary income, right through the implementation and gestation periods, makes much more sense.

SQ-7.1

Explore ways and means of reducing the project implementation time so that the products/services reach the customers faster. What other advantages will be there in such a strategy?

SQ-7.2.

What do you think measures the overall risk of a project in execution? Explore and list the factors that affect the overall risk of a project. What strategies can be adopted to minimize each of these?