



SKILL COUNCIL FOR  
GREEN JOBS

# Participant Handbook

**Sector**  
**Green Jobs**

**Sub-Sector**  
**Waste Management**

**Occupation**  
**Operation & Maintenance**

Reference Id: **SGJ/Q6403, Version 1.0**  
**NSQF Level 4**



**Desludging Operator**







**Shri Narendra Modi**

Prime Minister of India

“ Skilling is building a better India.  
If we have to move India towards  
development then Skill Development  
should be our mission. ”



## Certificate

**CURRICULUM COMPLIANCE TO  
QUALIFICATION PACK - NATIONAL OCCUPATIONAL  
STANDARDS**

is hereby issued by the

**SKILL COUNCIL FOR GREEN JOBS**

for the

### **Skilling Content : Desludging Operator**

Complying to National Occupational Standards of

Job Role/Qualification Pack : **'Desludging Operator'** QP No : **'SGJ/Q6403 Level 4'**

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Authorised Signatory  
(Skill Council For Green Jobs)

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The preparation of this manual would not be possible without the support and feedback of the Sector Council for Green Jobs (SCGJ) and the National Faecal Sludge and Septage Management Alliance (NFSSM Alliance) members.

This “Participant Handbook for Desludging Operator” is dedicated to all aspiring youth who desire to gain special skills and gain a meaningful and dignified livelihood in the FSSM sector.

A special thanks to the “Bill and Melinda Gates Foundation” (BMGF) for supporting the study and in the preparation of this training manual.

## About this Book

This book aims to provide theoretical and practical training to become a Septic Tank Desludging Operator. The qualification pack on “Desludging Operator” includes the following National Occupational Standards (NOS):

1. Emptying of septic tank
2. Transportation and safe disposal of sludge
3. Health and safety of workplace while doing desludging services
4. Entrepreneurship skills for FSSM services
5. Work effectively with co-workers.

Faecal sludge (FS) comes from (Septic tank /pit) onsite sanitation system (OSS). The sludge from the septic tanks is not transported through a sewer line. However, the septic tanks are emptied time to time through various methods. The process of emptying of septic tanks includes collection, transportation, treatment and safe disposal at an identified site.

In India, according to the Census 2011 data, coverage of urban households by sewerage and septic tanks was 33 percent and 38 percent, respectively. About 14.6 percent of households were reported to have pit latrines. Further, 6 percent urban households (4.7 million) were reported to be using public/community toilets. Under the Swachh Bharat Mission-Urban, around 66.42 Lakhs Individual Households Latrines (IHHL) were built while the remaining House-holds (HHs) rely on existing or the newly built 5.05 Lakh community and public toilets seats. The majority of these toilets that have been constructed under SBM-Urban are connected to the OSS. The desludging of the OSS requires skilled human resources, who can manage the Faecal Sludge (FS).

The Desludging Operator, also known as Sludge Emptier is an individual, who is responsible for emptying, transport and disposal of faecal sludge from the septic tank to the desludging site / FSTP / Co-treatment plant. He /She has to operate Sludge Vacuum tank with trucks, pumps, suction hoses, and other machinery/equipment to empty the septic tank. He / She is an individual who has the ability to start a company and venture into desludging services. He/she is responsible for the managing the Faecal Sludge and Septage Management (FSSM) business.

The participant handbook is designed considering the minimum education qualification of a Desludging Operator who should preferably have cleared the 5th standard in terms of school education. The key learning objectives and the skill gained by the participants are defined in the respective units listed in the document. The participants will be able to understand the processes of- emptying septic tanks as well as transport and disposal of faecal sludge from the septic tank to desludging site. He/ She will also be able to learn to operate the de-sludging vacuum truck, pump, suction hoses and other machinery/equipment required in emptying the septic tank.

We hope that this Participants Handbook will be able to provide a sound learning support to our young friends to aspire to build their career in the area of desludging faecal sludge.

## Symbols Used



Key Learning  
Outcomes



Steps



Role Play



Tips



Notes



Unit  
Objectives

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# 1. Introduction

Unit 1.1 - Introduction

Unit 1.2 – FSSM Value chain

Unit 1.3 – Types of de-sludging systems



## Key Learning Outcomes



**At the end of this module, you will be able to:**

1. Introduce the faecal sludge and septage management.
2. Create a FSSM value chain.
3. List the types of de-sludging systems.

## UNIT 1.1: Introduction

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Introduce the faecal sludge and septage management.

#### 1.1.1 Introduction

Faecal sludge (FS) comes from (Septic tank /pit) onsite sanitation system (OSS). The sludge from the septic tanks is not transported through a sewer line. However, the septic tanks are emptied from time to time through other methods. The process of emptying of septic tanks includes collection, transportation, treatment and safe disposal at the identified site.

In India, according to the Census 2011 data, coverage of urban households by sewerage and septic tanks was 33 percent and 38 percent, respectively. About 14.6 percent of households were reported to have pit latrines. Further, 6 percent urban households (4.7 million) were reported to be using public/community toilets. Under the Swachh Bharat Mission -Urban, around 66.42 Lakhs Individual Households Latrine (IHHL) were constructed while the remaining House-holds (HHs) rely on existing or the newly built 5.05 Lakh community and public toilets seats. The majority of the toilets constructed under SBM-Urban are connected to the OSS. (source of this document: \_\_\_\_\_)

#### 1.1.2 What is Faecal Sludge and Septage Management (FSSM)

This is the collection, transport, and treatment of faecal sludge from pit latrines, septic tanks or other onsite sanitation systems. Faecal sludge is a mixture of human excreta, water and solid wastes (e.g. toilet paper or other anal cleansing materials, menstrual hygiene materials) that are disposed in pits, tanks or vaults of onsite sanitation systems. Faecal sludge that is removed from septic tanks is called septage.

Types of sludge containment system used in OSS:

- **Soak pit:** A soak pit, also known as a soak-away or leach pit, is a covered, porous-walled chamber that allows water to slowly soak into the ground. Pre-settled effluent from a collection and storage/treatment or (semi-) centralized treatment technology is discharged to the underground chamber from which it infiltrates into the surrounding soil.
- **Septic tank:** A septic tank is an underground chamber made of concrete, fiberglass or plastic through which domestic wastewater (sewage) flows for basic treatment. Settling and anaerobic processes reduce solids and organics, but the treatment efficiency is only moderate (referred to as "primary treatment"). Septic tank systems are a type of simple onsite sewage facility (OSSF). They can be used in areas that are not connected to a sewerage system, such as rural areas.

### 1.1.3 What is the Need for De-Sludging?

In India, around 60 percent of households have onsite sanitation system (OSS). In OSS system the sludge is collected in the septic tank or in a pit. Over time, the tank fills with the sludge that needs to be emptied out from the tank. If the tank is not emptied, then it can overflow or even cause blockages and back flow of sludge into the toilets.

The desludging operator responsibility is to empty the tank and transport sludge to the dedicated sludge disposal site. As per the National Faecal Sludge and Septage Management (FSSM) Policy-2017, the sludge from the septic tank is to be emptied once in a three years.

### 1.1.4 Who is a De-Sludging Operator

The Desludging Operator , also known as Sludge Emptier is an individual, who is responsible for emptying, transport and disposal of faecal sludge from the septic tank to desludging site / FSTP / Co-treatment plant. He /She has to operate Sludge Vacuum tank with trucks, pumps, suction hoses, and other machinery/equipment to empty the septic tank. He /She is an individual with the ability to start a company and venture into the desludging services. He/she is responsible for managing the FSSM business.

The Individual is expected to be physically fit and should be able to work across various locations/site conditions. He /She should be self-motivated and provides services as per norms. He/ She must have good communication skill, team spirit, be courteous and polite. He/She should be efficient in working and should have training in handling the de-sludging/vacuum truck.

Job Role	Minimum requirements
NSQF Level	Level - 04
Minimum Education Qualification	5th Pass preferably
Maximum education Qualification	Not Applicable
Prerequisite License or Training	Not Applicable
Minimum Job Entry Age	18 years and above.
Experience	Not applicable

Table 1.1.1: Minimum requirements for desludging operator

## UNIT 1.2: FSSM Value Chain

### Unit Objectives

At the end of this unit, you will be able to:

1. Create a FSSM value chain.

The Management of faecal sludge includes the storage, collection, transport, treatment and safe disposal of sludge at the identified sludge disposal site. The complete Faecal Sludge and Septage Management (FSSM) value chain is shown in the figure below.

**Note:** *\*Containment of the faecal sludge does not fall under the purview of the de-sludging operator.*

**\*Ensuring proper re-use of the treated waste does not fall under the responsibility of the de-sludging operator.**

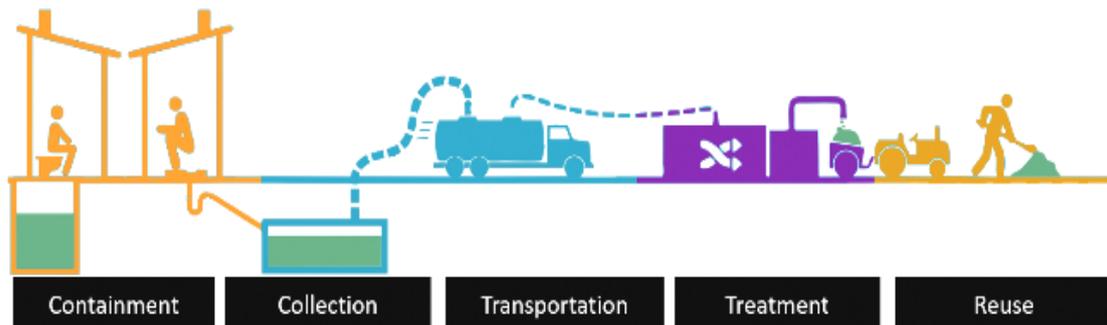


Fig. 1.2.1: Faecal Sludge and Septage Management Value Chain

### 1.2.1 Containment

This is the responsibility of the customer to ensure that he/she is making use of proper OSS such as septic tanks. It is the responsibility of the customer to ensure that the tank is well maintained (functional and without any failures).

### 1.2.2 Collection of Faecal Sludge

The customer/user/beneficiary raises the request or the desludging services to either the municipal office or the private operators. After the service fees is submitted at the respective office, the de-sludging vehicle with driver, operator and emptier reaches the site. Before the desludging activity starts, the user is requested before-hand to let the access cover of the septic tank open for some time, so that trapped harmful gases can escape.

### 1.2.3 Transportation of Sludge

The transportation of sludge is one of the most important components of the FSSM value chain. The desludging trucks act as a “Mobile Sewer Network” for onsite sanitation system. They collect the septage from the residential, commercial and institutional areas and safely transport and dispose the sludge to the dedicated or identified sludge disposal sites.

#### About De-Sludging Vehicle/Vacuum Truck

A vacuum truck or vacuum tanker is a tank truck that has a pump and a tank. The pump is designed to pneumatically suck liquids, sludge, slurries, or the like from a location (often underground) into the tank of the truck. The objective is to enable transport of the liquid material via road to another location. The de-sludging/vacuum truck transport the collected material to a treatment or disposal site, for example a sewage treatment plant.

A common material to be transport is septage (or more broadly: faecal sludge) which is human excreta mixed with water, e.g. from septic tanks and pit latrines). They also transport sewage sludge, industrial liquids, or slurries from animal waste from livestock facilities with pens.

### 1.2.4 Treatment of Sludge

The most desirable option for treatment of sludge collected from On-site sanitation system (OSS) is Faecal Sludge Treatment Plant (FSTP) or co-treatment plant. The compost from septage can be used as a soil amendment to reclaim land or can be used in landscaping or horticulture.

**Types of treatment options:** Co-treatment in case of STP, FSTP or desludging site

**Co-treatment:** The use of onsite sanitation technologies can be a sustainable solution to meet sanitation goals in a faecal sludge management (FSM) service chain, as long as the faecal sludge (FS) from these systems is collected, transported, treated, and then used for resource recovery or safely disposed of. One possibility for FS treatment is co-treatment with sewer-based wastewater treatment technologies. This is known as co-treatment.

**FSTP:** Faecal Sludge is often processed through a series of treatment steps to first separate the liquids from the solids, and then treat both the liquid and solid trains while recovering as much of the energy or nutritive value as possible. Common processes at faecal sludge treatment plants include:

- **Faecal sludge reception** - where the truck interfaces with the treatment plant and sludge is unloaded.
- **Preliminary treatment** - to remove garbage, sand, grit, and FOG (fats, oil and grease);
- **Primary treatment** - simple separation by physical means, or separation with microbial digestion;
- **Liquids treatment** - for example by using constructed wetlands, waste stabilization ponds, anaerobic digesters; and
- **Solids processing** - using the solids resulting from faecal sludge treatment for beneficial use where possible.

### 1.2.5 Re-use of Treated Waste

Once the faecal waste is treated either through co-treatment or using an FSTP, the end products – usually bio-char and compost are used as manure and sold at subsidized rates. The treated waste water is made use of in irrigation and can also be used for industrial purposes.

## UNIT 1.3: Types of De-Sludging Systems

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the types of de-sludging systems.

When setting up a de-sludging operation, the service can be done in two ways:

1. Planned/scheduled based system
2. Demand based system

#### 1.3.1 Planned/Scheduled Based System

In this method, the ULB or private agency uses a prescribed scheduled regimen for de-sludging at regular intervals. This process requires a larger number of trucks to ensure follow through on the mandated cleaning of once in two or three years.

#### 1.3.2 Demand Based System

This is a more commonly adopted method. In this system, the customer raises the request for emptying of the septic tanks. Based on the requests received, the service provider sends de-sludging vehicles to the customer. This system requires lesser number of vehicles.



## 2. Emptying of Septic Tank

- Unit 2.1 – Setting up a facility for provision of de-sludging operations
- Unit 2.2 – Steps for the desludging operator to follow while attending to a desludging request
- Unit 2.3 – Types of desludging
- Unit 2.4 – Components of vacuum trucks
- Unit 2.5 – Accessibility to the site of the septic tank
- Unit 2.6 – Accessibility to septic tank/pit
- Unit 2.7 – Installation of the hose connecting de-sludging
- Unit 2.8 – Health and safety precautions to be observed by the operator
- Unit 2.9 – Dos and don'ts while emptying the sludge from the septic tanks



## Key Learning Outcomes



**At the end of this module, you will be able to:**

1. Understand the process of setting up a facility for provision of desludging operations.
2. Understand the steps for the desludging operator to follow while attending to a desludging request
3. Understand the health and safety procedures involved while emptying the sludge from the septic tank.

## UNIT 2.1: Setting up a Facility for Provision of De-Sludging Operations

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Set up a facility for provision of desludging operations.

***\*The de-sludging operations can be undertaken by the ULB itself or through empanelled private agencies.***

The facility is primarily to function as a call centre for the process. The beneficiary has to raise the request for the desludging services with either the municipal office or the private operators' facility.

For this purpose it is important that adequately trained human resource is employed at the facility to work as call operators and truck driver & vacuum tank operators.

The following points must be followed by the person responding to the calls at the facility:

- The call operator must be trained to converse with customers in a polite and professional manner.
- They should be fluent in local language (written and oral). Knowledge of English/Hindi language will be preferable.
- The call operator must be able to understand the nature of request of the customer.
- They must be able to explain and clarify the nature of service, rates and availability of slots for service to the customers.
- All requests received, requests resolved and complaints received must be stored on a suitable MIS platform.
- The MIS should also capture the following:
  - keep a track of total number of vehicles
  - vehicles requiring maintenance
- Vehicles to be replaced The de-sludging/vacuum truck must be equipped with a GPS tracker.

#### **Training to be given to Truck Driver and Vacuum Tank Operators**

- All of the truck drivers and vacuum tank operators must be trained on the various aspects of the functioning of the truck and tank.
- More importantly, the driver and vacuum tank operator must be trained to talk and behave in a professional manner with the customers.
- They must be taught the importance of not being rude and to not get into an argument with the customers. In case of any altercation on site, they should immediately contact the head office and have the matter resolved.

- They must be taught to observe all safety protocols before, during and on completion of the se-sludging operations.
- They should be made of aware of possible problems that they may face on-site from faulty/ leaking septic tanks and how to convey the same to the customer to have the matter rectified.
- They should ensure that there is no spillage or leakage of sludge during or after the emptying process. In case there is any spillage, they must ensure proper clean-up of the same and have the municipal authorities come and ensure that the matter has been adequately solved.

### Placing of Requests by Customers

The customers/beneficiaries may place their requests with the ULB or the private contractor directly. The fees needs to be deposited as requested by the service provider. After the service fees is submitted, the de-sludging/vacuum truck with driver, operator and emptier will be deployed to the site.

Prior to starting the emptying activity, the user is requested to let the access cover of the septic tank remain open for some time (ideally for a minimum of two hours at least), so that most of the harmful gases can escape and it is safe for the desludging emptier to operate.

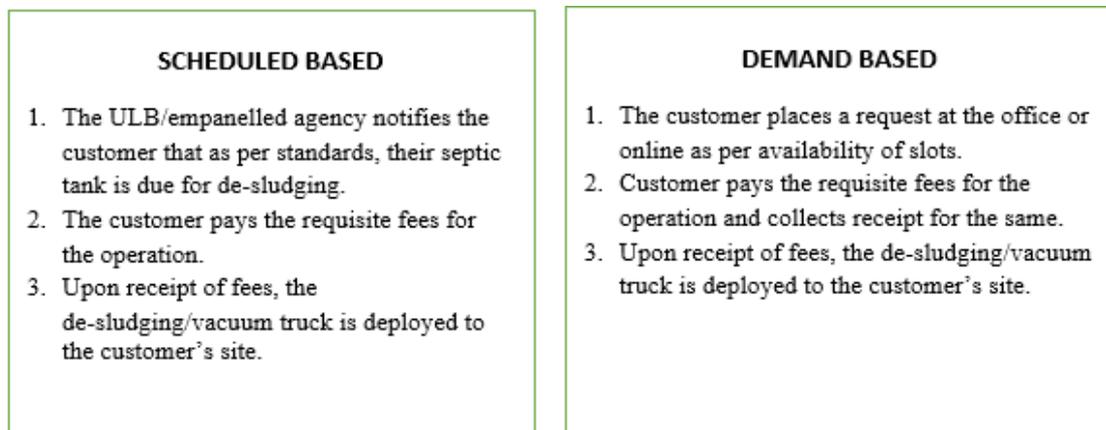


Fig. 2.1.1: Process to be followed to process a request for de-sludging

### Location of the Septic Tank

The desludging operator should be able to draw up a plan of a septic tank at the proper distances from water bodies, nearby buildings, sewer line, water lines or any prominent manmade or natural features etc. The proper distance would help in avoiding contamination of groundwater sources as well as other health and environmental problems.

- Septic tank should be located in an open area which is under the sky.
- It should be constructed as far away as possible from trees, exterior walls of buildings and any source of water.
- It should not be constructed in an area prone to flooding.

The following table shows the minimum appropriate safety distances that need to be maintained.

Distance from	Minimum distance required
Water Bodies	15.00 Meters
Pressure Water Pipeline	10 Feet
Sewer Line	15.00 Meters
Building Foundation or Nearest Building	3.00 Meters
Nearest Building	3.00 Meters
Deep Well	50 Feet
Shallow well	100 Feet
Streams and waterways	100 Feet
Slopes greater than 25 percent	25 Feet

### Size of the septic tank

The recommended size of septic tanks for 20 users, for housing colonies (up to 300 persons) and for hostels and boarding schools are given below in the tables.

No of Users	Length (in Meter)	Breadth (In Meter)	Liquid Depth (Cleaning Interval of)	
			1 Year	2 Year
5	1.5	0.75	1.0	1.05
10	2.0	0.90	1.0	1.40
15	2.0	0.90	1.3	2.00
20	2.3	1.10	1.3	1.80

Table 2.3.1: Recommended Size for Septic Tanks for 20 Users

**Source:** Code of practice for installation of septic tanks, Part 1, Design criteria and construction, Bureau of Indian Standards, 1986

No of Users	Length (in Meter)	Breadth (In Meter)	Liquid Depth (Cleaning Interval of)	
			1 Year	2 Year
50	5.0	2.0	1.0	1.24
100	7.5	2.65	1.0	1.24
150	10.0	3.0	1.0	1.24
200	12.0	3.3	1.0	1.24
300	15.0	4.0	1.0	1.24

Table 2.3.2: Recommended size of septic tanks for residential colonies

**Source:** Code of practice for installation of septic tanks, Part 1, Design criteria and construction, Bureau of Indian Standards, 1986

No of Users	Length (in Meter)	Breadth (In Meter)	Liquid Depth (D) for Stated intervals of sludge withdrawal	
			1 Year	2 Year
50	5.0	1.6	1.3	1.4
100	5.7	2.1	1.4	1.7
150	5.7	2.4	1.4	1.7
200	7.7	2.7	1.4	1.7
300	10.7	3.3	1.4	1.7

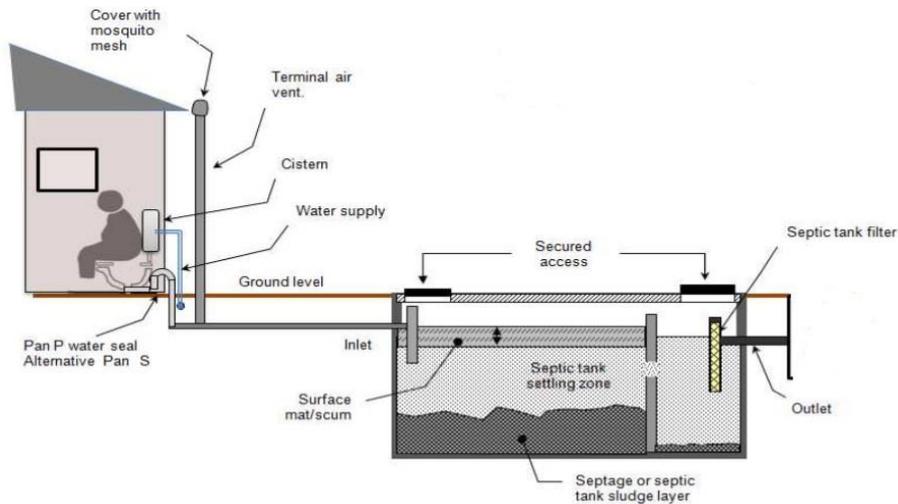
Table 2.3.3: Recommended sizes of septic tanks for Hostels and Boarding Schools

**Source:** Code of practice for installation of septic tanks, Part 1, Design criteria and construction, Bureau of Indian Standards, 1986

### Manage Opening of Septic Tank Cover

The components of a septic tank are:

- 1. Septic Tank:** Septic tank is an underground tank used for storage and primary treatment of wastewater. Single chamber septic tanks are used at the domestic level while the number of chambers may be increased depending on the load received. The first chamber of the septic tank is a sedimentation chamber where the suspended solids in wastewater settle down at the bottom. The second chamber acts as an intermediate barrier between the fresh waste and the outlet chamber.
- 2. Inlet pipe:** An inlet pipe is the first component of a septic tank system. It is connected to a distribution chamber that directs all the wastewater from toilets to the septic tanks.
- 3. Inlet baffle and outlet baffle:** A baffle is provided in the absence of an inlet-tee and outlet-tee inside the septic tank. A baffle is provided to distribute the flow more evenly along the width of the tank.
- 4. Partition wall:** To divide the tank into two or more chambers, a partition wall is constructed.
- 5. Access opening and cover:** Each compartment of a septic tank is provided either with a rectangular or circular access opening.
- 6. Ventilation/ Vent pipe:** A pipe used to let out the gases produced during decomposition of faeces is called a ventilation/Vent pipe.
- 7. Outlet pipe:** The outlet pipe connects the septic tank to the soak pit for outflow.



Some compartments of the septic tank are covered with an access cover. These access covers are opened timely to release the toxic gases contained therein. If these gases are not released timely, it may lead to problems in the de-sludging process.

#### **Inspect the consistency of sludge**

When the sludge is prepared in the tank, it has to be transferred to the soak pit through outlet pipes. But to be transferred through pipes, the composition of the sludge is checked so that it can easily pass through these pipes. If the sludge is extra dry and hard, some quantity of water is mixed with this sludge to dilute it so that the sludge pumping process can be started.

## UNIT 2.2: Steps for the Desludging Operator to Follow While Attending to a Desludging Request

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the steps to be followed by the desludging operator while attending to a desludging request.

The de-sludging/vacuum truck is a complex mechanical system that needs proper operation and maintenance while doing the de-sludging service. The operators should become familiar with the proper operation of the equipment in use for each operation.

## UNIT 2.3: Types of De-Sludging/Vacuum Truck Used in India

### Unit Objectives

At the end of this unit, you will be able to:

1. Demonstrate the types of de-sludging.

#### 2.3.1 Truck Mounted Vacuum Tankers: (1,500 to 10,000 Litres Capacity)

The truck-mounted vacuum tankers have vacuum pump with hydraulic motor. The capacity of the tank varies from 1,500 to 10,000 litres.

#### 2.3.2 Tractor-Mounted Vacuum Tanker: (3,000 to 5,000 Litre Capacity)

Tractor mounted vacuum tankers are made locally across India. The capacity of the sludge vacuum tanks varies from 3,000 to 5,000 litres. The local dealers are converting tractor into sludge vacuum tank according to their need.



Fig. 2.3.1: Types of Sludge carrying vehicles used in Indian cities

Apart from the vehicles mentioned above, there are also bike mounted machines called guplers. These can be used in areas where the quantity of sludge to be emptied is less, and/or the access routes are <9m in width.

## UNIT 2.4: Components of Vacuum Trucks/De-Sludging Vehicle

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the components of vacuum tanks.

The desludging operator must know the components of the sludge vacuum truck. The components of the sludge vacuum truck are given below:

1. Hydraulic Motor
2. Liquid ring vacuum pump
3. Service liquid pump
4. Suction and discharge valve
5. Swing-out rear door
6. Handwheels
7. Hatch
8. Pressure safety valve
9. Hydraulic tank tipping cylinder
10. Water separator for discharge air
11. Service liquid (Water Tank)
12. Load/ Discharge Control Valve
13. Slurry Tank
14. Tool locker

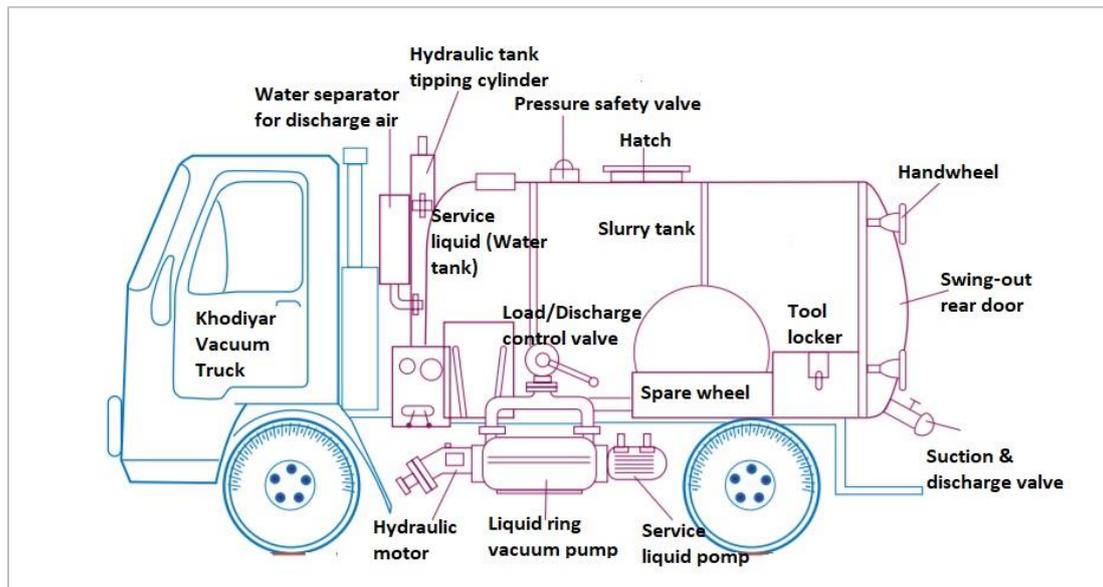


Fig. 2.4.1: Components of a vacuum de-sludging truck

Once the de-sludging operator is familiar with the working of the truck, he/she should follow the steps given below when attending a request placed.

## UNIT 2.5: Accessibility to the Site of the Septic Tank

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Set up the accessibility to the site of the septic tank.

- The de-sludging operator is to follow the instructions given below while he/she is visiting the site: Desludging operator should take care that the streets are wide enough for a de-sludging/vacuum truck to pass.
- Desludging operator should take care that there is enough space to turn the de-sludging/vacuum truck around.
- Desludging operator should take care that the access roads are in a good conditions on the way to the septic tank/pit site. The desludging operator/emptier is to ask the households about the location of the septic tank. The Households may be aware of the location of the septic tank as they have been living there.

## UNIT 2.6: Accessibility to Septic Tank/Pit

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Understand how to set up the accessibility to septic tank.

The accessibility of the septic tank/pit will indicate how easy it will be to perform the desludging of the septic tank. It would help the desludging operator to estimate the amount of time required to desludge the septic tank.

- Finding the location of the septic tank. The operator to use the various methods to find the location of the septic tank. The driver of the truck must ensure that the vehicle is not parked or driven over the septic tank.
- The distance between sludge vacuum truck parking area and location of septic tank.
- The presence or absence of access cover over each compartment of the septic tank must be opened to release the toxic gases contained therein.
- The operator must further check the level of water/liquid in the tank to gauge the volume to be emptied.
- The operator must inspect the tank to check for any faulty design or leakages from the tank.
- If the sludge has dried up and hardened, water must be mixed with it for dilution before starting the pumping process.

## UNIT 2.7: Installation of the Hose Connecting De-Sludging/Vacuum Truck to Septic Tank and Emptying the Tank

### Unit Objectives

At the end of this unit, you will be able to:

1. Install the hose connecting desludging.

#### Installation of the Septic Tank

Desludging operator should follow the instructions given below while he/she is installing the pipe/hose that connects the septic tank/pit with the sludge vacuum truck.

- The operator must ensure that before beginning the emptying process, there are no children around the vicinity of the septic tanks.
- The operator must ensure that the brakes on the vehicle have been applied and wheel chokes are placed the wheels for additional safety.
- The desludging operator should install the hose in the septic tank before connecting to the de-sludging/Vacuum Tank.
- The pipes and valves must be checked for any faults or cracks.
- The desludging operator may require extra hoses depending on the distance between the truck and tank.
- The operator must make sure that there is no back flow into the tank from the pipe.
- The operator must ensure that all of the sludge is collected from the bottom of the tank as well.

#### Sludge Tank Emptying Process

A septic tank technician is responsible for keeping the tank in working condition. For cleaning the tank and emptying the desludge, he takes services from a desludging operator. If the tank is not emptied and cleaned timely, it may lead to diseases. A desludging operator follows the following steps to empty the sludge tank:

- Install pipe in the septic tank connecting with sludge tank



*Fig. 2.7.1: Installing the pipe*

- Schedule meter check on the septic tank before pumping out the sludge



*Fig. 2.7.2: Checking the sludge in the septic tank*

- Manage to leave deep sludge left in the bottom of septic tank as per the industry standard and government norms



*Fig 2.7.3: Left sludge at the bottom*

- Manage closing of the septic tank cover



*Fig. 2.7.4: Closing the access cover*

- Practice to uninstall the suction pipes from the septic tank and clean surroundings and pipes before leaving the site



*Fig. 2.7.5: Uninstall the suction pipes*

- Demonstrate that sludge vehicle is not leaking during the transit process



*Fig. 2.7.6: Inspecting the vehicle*

- Install suction pipe in the septic tank connecting with the sludge tank



*Fig. 2.7.7: Install suction pipe*

- Empty sludge from the septic tank



*Fig. 2.7.8: Empty the sludge tank*

- Uninstall suction pipe from the septic tank and close the access cover



*Fig. 2.7.9: Cover the septic tank*

## UNIT 2.8: Health and Safety Precautions to be Observed by the Operator

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Understand the health and safety precautions to be observed by the operator.
- In case there is any spillage of sludge during the emptying process or after, the operator must use the shovel from the kit provided to clean the sludge and cover the spilt area with lime.
  - If the spillage is significant, it must be covered with mud/soil and sprinkled with lime. The operator must then call the ULB authorities to ensure proper clean-up is initiated for the area.
  - Finally, the operator must replace the lids/covers of the tanks.
  - It must be noted that throughout the de-sludging process, the operator must be wearing the PPE provided. In no instance should the operator enter into the septic tanks.

## UNIT 2.9: Dos and Don'ts While Emptying the Sludge from the Septic Tanks

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the dos and don'ts while emptying the sludge from the septic tanks.

#### 2.9.1 Dos

1. Wear personal protective equipment (PPE) while emptying the sludge from the septic tank.
2. Desludging operator to keep the records of the customers attended to.
3. Customer to open the access cover of the septic tank before the visit of the desludging operator.
4. Park the sludge vacuum truck at an appropriate distance.
5. Inspect the sludge vacuum truck for any faults before departure to the site.
6. Inspect the vacuum pumps, hydraulic motor, pressure safety valve, suction valve, hydraulic tank tipping cylinder, hoses etc. regularly.
7. Inspect the oil and moving parts of the sludge vacuum truck.
8. Check the water fixtures for any leakages in the pipeline regularly
9. Carry a first-aid box
10. Clean the area near the septic tank after desludging of septic tank services.
11. Close the access cover before departure from the site.

#### 2.9.2 Don'ts

1. Do not park or drive on septic tank or pit.
2. Do not engage in manual scavenging.
3. Don't smoke while carrying out desludging.
4. Don't allow children near the septic tank while desludging the septic tank.
5. Don't allow any plastic to enter into the sludge vacuum tank.
6. Don't enter into the septic tank/pit without suitable gear.

**Exercise**



1. What are the components of sludge vacuum truck?

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2. What are the steps that the beneficiary is to follow while requesting for desludging services?

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3. What are the steps that the desludging operator should follow while carrying out desludging services?

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4. What are the dos and don'ts while emptying the sludge from the septic tank?

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5. What are the instructions that the desludging operator should follow while connecting the hose between septic tank and sludge vacuum tank?

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## 3. Transportation of Sludge



Unit 3.1 – Transport the faecal sludge

Unit 3.2 - Transportation of sludge

Unit 3.3 – How to control the split sludge during transportation

Unit 3.4 – Health and safety precautions to be taken during transportation of sludge

Unit 3.5 – Dos and don'ts while transporting the sludge from the septic tank to dedicated sludge disposal sites



## Key Learning Outcomes



**At the end of this module, you will be able to:**

1. Understand how to transport the sludge from a septic tank to sludge disposal site.
2. Understand how to control spillages, (if any) which may occur during the process of transporting the sludge from septic tank to sludge disposal sites.
3. Understand how to dispose the sludge at the identified sludge disposal sites.

## UNIT 3.1: Maintenance of Desludging Tank

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the steps for preventive maintenance of desludging tank.

The desludging operator needs to consider the some important aspects to maintain the proper working condition of desludging tank. These aspects are:

Carry out oil level check in the vacuum pump, oil-cooling tank, hydraulic tank and tanker engine

Carry out tanker fuel level and water levels checks in the tanker engine, windscreen water bottle, wash tank and water tank

Perform cooling radiator check for the hydraulic oil and pump oil

Perform checks on desludging tank rear door opening

Perform checks on tyre pressures, lights, indicators, horns of desludging tank

Prevent tank overflow

Perform checks on contact between gaskets and seats

Perform checks on steel balls

Carryout leak check in hydraulic system and power take-off shafts

*Fig. 3.1.1: Desludging tank maintenance measures*

## UNIT 3.2: Transport the Faecal Sludge

### Unit Objectives

At the end of this unit, you will be able to:

1. Identify the best medium for transporting the faecal sludge.

The desludging operator needs to consider the following aspects while transporting the faecal sludge from the septic tank to the identified sludge disposal site. The measures are given below:



#### De-sludging/vacuum truck:

- Different types of de-sludging/ vacuum trucks to be used.
- Licence and permit for sludge vacuum truck to be carried by the operator.
- Licence of driver to be carried at all times.



#### Control Leakage:

- Sludge removing equipment to be carried (Like Hoses etc)
- The spill management equipment to be carried (Shovels, lime, collection bag and sand etc.)



#### Health and Safety:

- The desludging operator needs to follow the rules of the road and the activities at the desludging site.
- The workers must use health and safety equipments at all times while on duty.

Fig. 3.2.1: Measures to be followed while transportation

## UNIT 3.3: Transportation of Sludge

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Identify the best medium for transportation of sludge.

The desludging operator should follow the instructions give below while he/she is transporting the sludge from the septic tank to a dedicated sludge disposal site.

- The desludging operator should be aware of the timings of restrictions on movement of heavy vehicles in the urban areas.
- The desludging operator should choose dedicated/ decided route to transfer the sludge.
- The dedicated route would help in reducing the possibilities of illegal dumping of sludge.
- In case the driver or operator notice any mechanical faults/malfunction with the truck or the containment tank, they must report the matter immediately to the supervisors.

## UNIT 3.4: How to Control the Spilt Sludge (if any) During Transportation

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Control the spilt sludge during transportation.

The Vacuum truck must carry lime and shovel. The driver/operator must take the following steps to control the spilt sludge. These are as follows:

1. The driver/operator must first try and recover the spilt sludge using the shovel in the kit provided.
2. If recovery of the sludge is not possible, the driver/operator must pour sand/soil over the sludge and then cover it with lime.
3. Driver must inform the health department of urban local bodies and get them to attend to the spilt sludge at the earliest.

## UNIT 3.5: Health and Safety Precautions to be Taken During Transportation of Sludge

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Understand the health and safety precautions to be taken during transportation of sludge.

- In case of handling spilt sludge, make sure to wear the PPE.
- Don't smoke while in the truck.
- In case there is a fault with the truck, inform the supervisor immediately.

## UNIT 3.6: Do's and Don'ts While Transporting the Sludge from the Septic Tank to Dedicated Sludge Disposal Sites

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the dos and don'ts while transporting the sludge from the septic tank to the sludge disposal sites.

#### 3.6.1 Dos

1. Make sure that all locks on the vacuum tank are secured and that there is no leakage.
2. Make sure that the hose is intact.
3. Use the pre-decided route to transport the sludge to the disposal site.
4. Make sure that the road on the route chosen is in a drive worthy condition.
5. Control spillage while transporting the sludge.
6. Put lime and sand on the spill.

#### 3.6.2 Don'ts

1. Don't drive fast or over the speed limit.
2. Don't smoke inside the truck.
3. Don't take a different route from the one that has been pre-decided.
4. Don't try and dispose the sludge enroute to the actual disposal site.

**Exercise**

1. What are the three aspects desludging operator need to know while transporting the sludge?

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2. How to control the leakage while transporting the sludge?

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3. What are the dos and don'ts to be followed while transporting the sludge from the septic tank to the dedicated sludge disposal site?

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## 4. Safe Disposal of Sludge



- Unit 4.1 – Disposal of sludge at identified sludge disposal sites
- Unit 4.2 – Step by step process to be followed while disposing the sludge at the disposal site
- Unit 4.3 – Type of sludge disposal site
- Unit 4.4 – Health and safety precautions to be taken while emptying the sludge at the disposal site
- Unit 4.5 – Dos and don'ts while emptying the sludge from the truck to the dedicated sludge disposal sites



## Key Learning Outcomes

**At the end of this module, you will be able to:**

1. Understand how to dispose the sludge at the identified sludge disposal sites.

## UNIT 4.1: Disposal of Sludge at Identified Sludge Disposal Sites (Treatment Plants)

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Demonstrate the disposal of sludge at identified sludge disposal sites.

Desludging operator should follow the instructions given below while he/she is disposing the sludge at the dedicated disposal site.

- The sludge is to be disposed only at the identified sludge disposal site.
- The sludge disposal site can be an FSTP, Co-treatment plant, etc.
- The desludging operator is to take care of spillages that happen from the truck at the disposal site.
- At the disposal facility, the truck must be positioned in such a way that the faecal sludge may be emptied using only a single length of hose pipe.
- Once the sludge has been emptied, the pipe and outlet valve must be thoroughly cleaned.
- The emptier/operator must wear personal protective equipment (PPE) while disposing the sludge at the disposal site.



*Fig. 4.1.1: Safe disposal of sludge at dedicated sludge disposal sites*

## UNIT 4.2: Step by Step Process to be Followed While Disposing the Sludge at the Disposal Site

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the step by step process to be followed while disposing the sludge at the disposal site.

Check with the FSTP/Co-treatment/STP plant guard and carefully follow the instruction of guards / Plant operator.  
(Request to make entry and exit time in the entry register, request for sample of sludge for testing, discharge the sludge at disignated site etc.)

Proper position of the sludge vacuum truck at sludge discharge point so that only single length of hose pipe is used.  
Remove the hose and discharge the sludge at the discharge point and clean the hose before leaving the discharge point.

Clean up the spillage near the discharge point  
Emptier to use proper personal protective equipment's  
(Gloves, mask, hard hat etc.)

*Fig. 4.2.1: Process of sludge disposing*

## UNIT 4.3: Type of Sludge Disposal Site

### Unit Objectives

At the end of this unit, you will be able to:

1. List the types of sludge disposal site.

### 4.3.1 FSTP Plant

The Faecal Sludge Treatment Plant (FSTP) is made for treating the faecal sludge collected from the onsite sanitation system. FSTP may be a suitable choice in small cities or towns where STPs do not exist.



Fig. 4.3.1: Devanahalli FSTP, Near Bangalore, Karnataka

### 4.3.2 Co-treatment Plant

Co-treatment of Septage at Sewage Treatment Plants (STP) is one of the solutions that can be implemented for the treatment of faecal sludge. Co-treatment may be a suitable choice in cities and towns with existing sewage treatment plants.



Fig. 4.3.2: Co-treatment plant, Puri, Odisha (Connected to STP plant)

### 4.3.3 Sewage Treatment Plant (STP)

Sewage treatment plants help in removing the contaminations from the wastewater, primarily from the households and commercial sewage. The cities where FSTP or Co-treatment is not available use the STP to dispose of the faecal sludge.



Fig. 4.3.3: Sludge disposal tank connected with STP, Vizag, Andhra Pradesh

### 4.3.4 Any Other Site

Some cities in India dispose the collected sludge outside of the city limits or onto agriculture land. However, disposing of the sludge in the open is not a healthy practice and can cause severe pollution and environmental degradation.



*Fig. 4.3.4: Disposal of faecal sludge outside the city limits*

## UNIT 4.4: Health and Safety Precautions to be Taken While Emptying the Sludge at the Disposal Site

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the health and safety precautions to be taken at the disposal site.
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- Ensure to wear the PPE before starting to empty the truck.
  - Make sure that all valves are working properly before starting the emptying process.
  - Ensure that the hose is properly connected to the emptying valve and does not have any cracks that may cause the sludge to leak.

## UNIT 4.5: Do's and Don'ts While Emptying the Sludge from the Truck to the Dedicated Sludge Disposal Sites

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the dos and don'ts while emptying the sludge from the truck to the sludge disposal sites.

#### 4.5.1 Dos

1. Park the vehicle at the appropriate sludge disposal point.
2. Follow the instruction of plant operator while desludging the sludge at the disposal site.
3. Follow the instruction of the guard while entering the sludge disposal plant.
4. Make an incoming and outgoing entry in the record register.
5. Wear personal protective equipment while carrying out desludging service.
6. Clean the area near the disposal point of any spilt sludge.
7. Clean hose after disposal of the sludge at the disposal point.
8. Control spillage while transporting the sludge.
9. Put lime or sand on the spill.

#### 4.5.2 Don'ts

1. Don't dispose the sludge in water bodies.
2. Don't dispose sludge in open areas.
3. Don't dispose the sludge near any water body.
4. Don't dispose the sludge in a sewer line.
5. Don't dispose the sludge near a residential area.
6. Don't smoke while disposing sludge at the sludge disposal site.

**Exercise** 

1. What are the instruction desludging operator need to follow at the sludge disposal site?

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2. What is Faecal Sludge Treatment Plant (FSTP)

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## 5. Health and Safety in the Workplace While Carrying Out de-sludging Services



Unit 5.1 – Potential hazards while carrying out desludging services

Unit 5.2 – Measures of health hazards for desludging operator

Unit 5.3 – Personal protective equipment

Unit 5.4 – Immunizations, health, and safety

Unit 5.5 – Emergency contact or communication in hazards

Unit 5.6 – Health and safety equipment are for the desludging operator

Unit 5.7 – Components of the first-aid box



## Key Learning Outcomes

**At the end of this module, you will be able to:**

1. Would be aware about the potential operational hazards.
2. Would aware how to handle the equipment's safely.
3. Would be aware about First Aid.
4. Would aware, how to maintain occupational health and safety.

## UNIT 5.1: Potential Hazards While Carrying Out Desludging Services

### Unit Objectives

At the end of this unit, you will be able to:

1. Identify the potential hazards while carrying out desludging services.

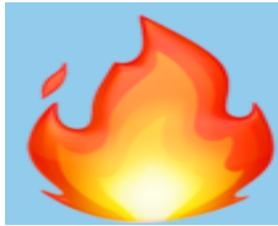
S. No	Types of hazards	Image of hazards
1	<b>Physical hazards while desludging services:</b>	
	<ul style="list-style-type: none"> <li>• The collapse of the septic tank/pit wall</li> <li>• Slips, trips, and falls</li> <li>• Exposure to sharp objects contained in the sludge (Glass, metal, blade etc.)</li> <li>• Any other accident particularly during traveling etc.</li> </ul>	
2	<b>Chemical hazards while desludging services:</b>	
	<ul style="list-style-type: none"> <li>• Harmful gases from the septic tank (Methane, Ammonia, Sulphur dioxide and Corban dioxide etc.)</li> </ul>	
3	<b>Explosive - Flammable gases:</b>	
	<ul style="list-style-type: none"> <li>• These gases are Methane and Carbon Monoxide etc. The workers to avoid smoking nearby the septic tank.</li> </ul>	
4	<b>Fire</b>	
	<ul style="list-style-type: none"> <li>• The fire may have occurred in the septic tanks due to high heat or due to methane gas.</li> <li>• The Desludging Operator to avoid the use of matchbox, smoking nearby the septic tank.</li> </ul>	

Table 5.1.1: Potential hazardous activities while carrying out desludging services

## UNIT 5.2: Measures of Health Hazards for Desludging Operator/Emptier

### Unit Objectives

At the end of this unit, you will be able to:

1. List the measures of health hazards for desludging operator.

The desludging operator must follow the health hazard prevention measures required for desludging. The health hazards measures are given below:



#### Personal Protective Equipment (PPE)

- Mandatory to wear PPE to avoid any hazard while carrying out de-sludging services
- Wear PPE to avoid direct exposure to Faecal Sludge.
- Avoid unsafe working practice.
- Avoid smoking while carrying out desludging services.



#### Training Program

- Training program for de-sludging operators including emptier on health and safety measures.
- Training programme on use of PPE.
- Training program on use of First-Aid.
- Provide medical insurance to the desludging operator including emptier etc.



#### Immunization of Health and Safety

Desludging workers should be immunised for: (Tetanus, Hepatitis A & B and Diphtheria).  
First-Aid equipment.  
Emergency eye wash facilities.  
Emergency contact numbers.

Fig. 5.2.1: Health hazards measures

## UNIT 5.3: Personal Protective Equipment

### Unit Objectives

At the end of this unit, you will be able to:

1. Demonstrate Personal Protective Equipment.

Personal Protective Equipment's (PPE) must be worn at all times while carrying out desludging activities. The list of required PPE is given below in the diagram.



Fig. 5.3.1 Personal Protective Equipment (PPE)

## UNIT 5.4: Immunizations, Health, and Safety

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Define immunization and various health hazards.

The desludging workers should be immunized for Tetanus, Hepatitis A & B, and Diphtheria etc. as they work in very hazardous conditions.



*Fig. 5.4.1: Vaccinations to be administered to the de-sludging operators*

## UNIT 5.5: Emergency Contact or Communication in Hazards

### Unit Objectives

At the end of this unit, you will be able to:

1. List the emergency contacts of important agencies.

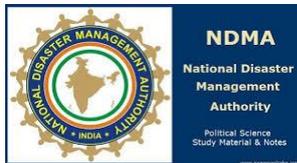
S. No	Name of the agency	Contact Numbers	Image or Sign Board
01	<b>Police:</b> In an emergency, the police would help in enforcing the law and protect the people.	100	
02	<b>Ambulance:</b> In any emergency, Ambulance would help in carrying the injured people to the hospital.	102	
03	<b>Fire:</b> In a fire emergency, the fire brigade would help to rescue the people.	101	
04	<b>Disaster Management:</b> The disaster management organization helps people in the event of any natural or man-made disaster.	108	
05	<b>Urban Local Bodies:</b> The ULBs is a local government which helps its citizens in an emergency situation.	ULB helpline number	

Table 5.5.1: Emergency contacts

## UNIT 5.6: Health and Safety Equipment for the Desludging Operator

### Unit Objectives

At the end of this unit, you will be able to:

1. Identify the health and safety equipment for the desludging operator.

Item Description	Name of the Equipment	Image of Equipment
1	<b>Safety Helmet or Head Protection:</b> The desludging operator must use a safety helmet while working on site. The safety helmets help protect the workers from any head injuries.	
2	<b>Safety Goggles:</b> The desludging operator must wear safety goggles to protect their eyes.	
3	<b>Nose Mask (Reusable):</b> The desludging operator must wear a nose mask. It will help in protecting them from the bacteria and virus etc.	
4	<b>PVC Rubber Hand Gloves:</b> The gloves would help in protecting from direct contact with sludge.	

Item Description	Name of the Equipment	Image of Equipment
5	<b>Acid Alkali Proof Suit:</b> The Acid Alkali Proof Suit provides protection from direct contact with sludge.	
6	<b>Gum Boot:</b> The desludging worker must wear gumboots while carrying out desludging activities.	
7	<b>Safety Light / Torch:</b> The safety torch can be used properly inspecting the septic tank	
8	<b>First Aid Box:</b> The first aid box can be used in case of any injury.	
9	<b>Fire extinguisher:</b> The fire extinguisher can be used in case of breakout of fire on site.	

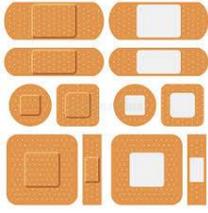
Table 5.6.1: Personal protective equipment

## UNIT 5.7: Components of the First-Aid Box

### Unit Objectives

At the end of this unit, you will be able to:

1. List the components of the first-aid box.

S. No	Name of the First Aid Box Items	Images
01	<b>First Aid Chart:</b> The adjoining chart details out the use of the first aid box in an emergency.	
02	<b>Medical Plasters:</b> Elastic bandages are used without the need for dressing the injured area. It helps in reducing swelling etc.	
03	<b>Medical Gauze:</b> Small, medium and large sterile gauze dressings	
04	<b>Bandages:</b> These bandages are used to hold the dressing on a wound.	
05	<b>Safety pins:</b> The safety pins are used in fixing the bandages.	

S. No	Name of the First Aid Box Items	Images
06	<b>Disposable sterile gloves:</b> These gloves are used in medical examination and preventing cross-contamination between patients and the caregiver.	
07	<b>Scissors:</b> The scissors are used in cutting of bandages, gauze and injured area etc.	
08	<b>Alcohol-free cleansing wipes:</b> The wipes are used in the cleaning of the wound.	
09	<b>Sticky tape:</b> The medical tapes are used to hold the bandages in place.	
10	<b>Thermometer:</b> The thermometer is used to measure the body temperature.	
11	Cream (Skin rash, spray to relieve insect bites and stings, Antiseptic cream)	
12	Medicines (Painkillers, Cough, Antihistamine etc)	

S. No	Name of the First Aid Box Items	Images
13	Distilled water for cleaning wounds	
14	<b>Eyewash and eye bath:</b> This can be used to clean or soothe eyes from irritants.	

Table 5.7.1: Components of the first-aid box

**Exercise**



1. What are the major hazards may occur while doing desludging service?

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2. Whom to contact in case of an emergency?

- a. Ambulance
- b. Police
- c. Fire Brigade
- d. Disaster Management Team
- e. Urban Local Bodies
- f. All of the above

3. What is the importance of following the use of health and safety equipment?

S. No	Name of the safety equipment's	Importance of equipment's
1		
2		
3		
4		
5		

4. What are the types of personal protective equipment? Please answer in detail.

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## 6. Entrepreneurship Skills for FSSM Services



Unit 6.1 – Requirement of infrastructure in establishing of entrepreneurship in desludging services

Unit 6.2 – Challenges for setting up a desludging business



## Key Learning Outcomes

**At the end of this module, you will be able to:**

1. Understand how to set up an entrepreneurship in desludging services.
2. List the challenges that come while setting up a desludging business.

## UNIT 6.1: Requirement of Infrastructure in Establishing of Entrepreneurship in Desludging Services

### Unit Objectives

At the end of this unit, you will be able to:

1. Identify the infrastructure requirements in establishing desludging services.

### 6.1.1 Key Activities of Desludging Services

Key activities of desludging activities include:

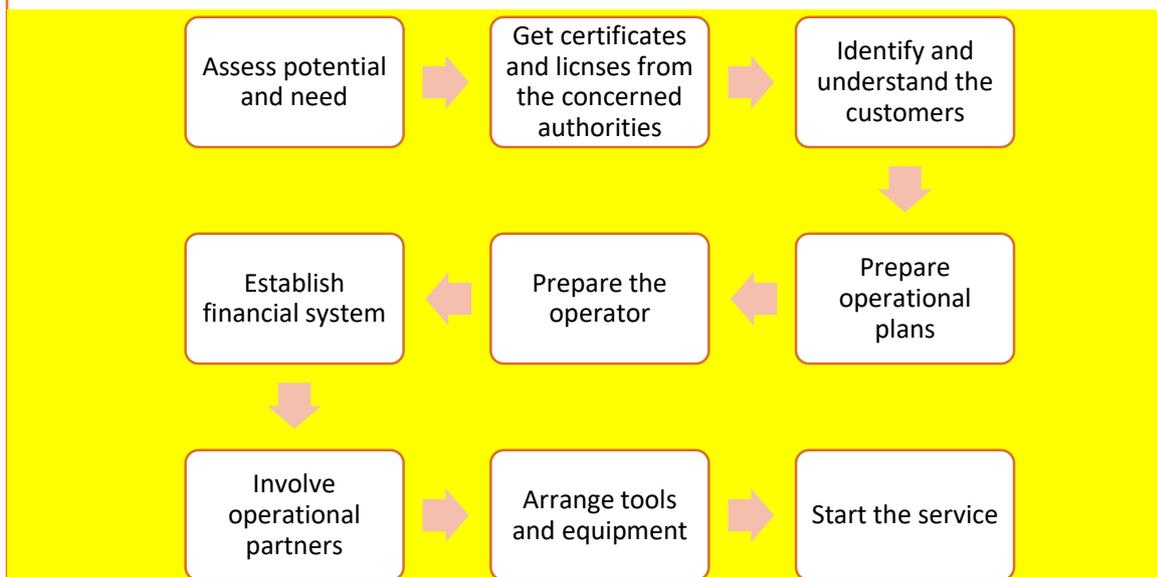


Fig. 6.1.1: Key activities of desludging services

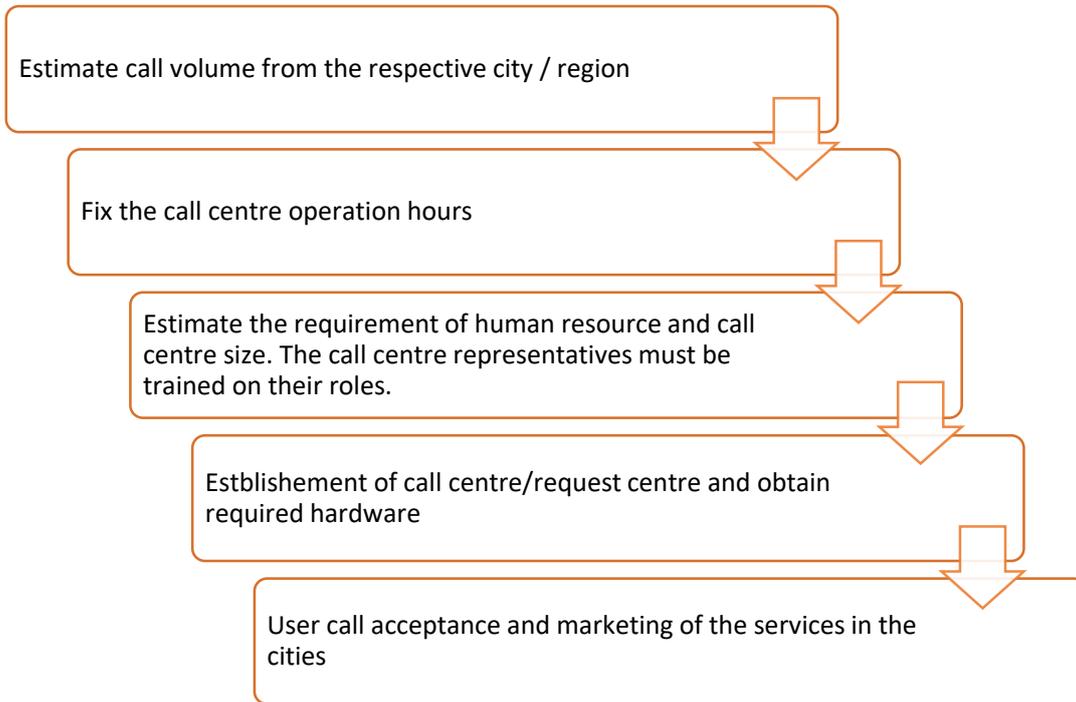
### 6.1.2 Licensing, Certification and Registration Process

Different types of licenses, certificates and registrations are required for starting the desludging operations. The required licenses are:

- Permit for truck from Regional Transport Office (RTO)
- License for providing desludging service from Urban Local Bodies
- Pollution certificate of Vehicle
- Vehicle Insurance certificate
- Fitness certificate of the sludge vacuum truck
- Health Insurance of workers

### 6.1.3 Identify the Customers

The private desludging Operator has to establish a centralized call center to receive a request for desludging of septic tank from the residential, commercial and institutional areas.



*Fig. 6.1.3: Step by step process of identifying the customers*

- Furthermore, the call centre representatives must be trained on the following: The HR persons must be trained to converse with customers in a polite and professional manner.
- They should be fluent in English and the local language (written and oral).
- The HR persons must be able to understand the nature of the request of the customer.
- They must be able to explain and clarify the nature of service, rates and availability of slots for service to the customers.

All requests received, requests resolved and complaints received must be stored on a suitable MIS platform for easy maintenance, complaint re-dressal and transparency in services.

### 6.1.4 Size and Procurement of Key Tools

S. No	The capacity of sludge vacuum truck	Cost (In INR)
01	1,500 litres capacity de-sludging/vacuum truck	
02	3,000 litres capacity de-sludging/vacuum truck	
03	4,000 litres capacity de-sludging/vacuum truck	
04	5,000 litres capacity de-sludging/vacuum truck	
05	9,000 litres capacity de-sludging/vacuum truck	

Table 6.1.1: Procurement of sludge vacuum truck

Areas with access roads <9m in width may require the use of emptiers with a capacity between 1,500-3,000 litres. Alternatively bike mounted machines known as “Gulpers” may be used, especially in case of hard to reach slum and slum-like areas.

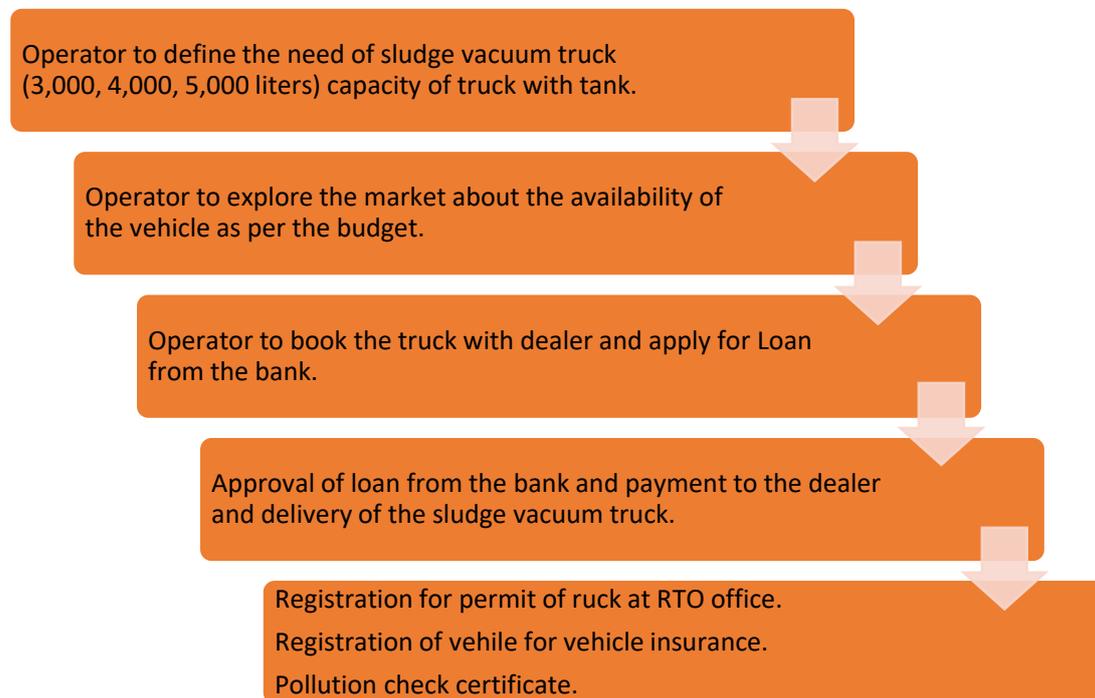


Fig. 6.1.4: Step by step process of procuring a sludge vacuum truck

All vehicles must be fitted with a GPS tracking system to ensure safety and compliance to rules.

### 6.1.5 Parking Space

The desludging entrepreneur should find the proper parking space to park the sludge vacuum truck.

### 6.1.6 Procure Human Resources

The desludging entrepreneur is to procure the required human resource for desludging services. These would be driver and emptier.

#### Fix the rate of desludging services:

The entrepreneur is to fix the rate for the desludging services in various land use areas.

S. No	Category of Land use areas	Service Charges (In INR)
01	Desludging in Residential area	
02	Desludging from Commercial area	
03	Desludging from Industrial area	

Table 6.1.2: Category of land use areas

Also, being a part of a workplace, requires that the work requirements to be clearly explained and supervised. One can create a work requirement document that is the record of the task which must be performed with full details such as shown in the following figure:



Fig. 6.1.3: How to understand work requirement

A sense of harmony and unity is the key to a healthy and competitive environment in a workplace. The work group is united by common goals and missions. But, at times, issues such as varied viewpoints create an unhealthy work environment. As a desludging entrepreneur, there needs to be proper interaction with superiors as well as colleagues and workers.

## UNIT 6.2: Challenges for Setting Up a Desludging Business

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the challenges that come while setting up a desludging business.

### 6.2.1 Technical Challenges of Desludging Business

There are a number of technical problems with desludging including:

- Tanks rising out of the ground after rainfall this is most common for unanchored plastic or fibreglass tanks
- Baffles and inlet and outlet junctions removed, not installed, broken, or not connected to an effluent disposal system
- Pumping from the septic tank rather a separate pump well
- High levels of sludge accumulating from inadequate maintenance (lack of desludging)
- Undersized tanks relative to the hydraulic loads
- Poor drainage around the tank due to run-on, or because it is installed too low into the ground.

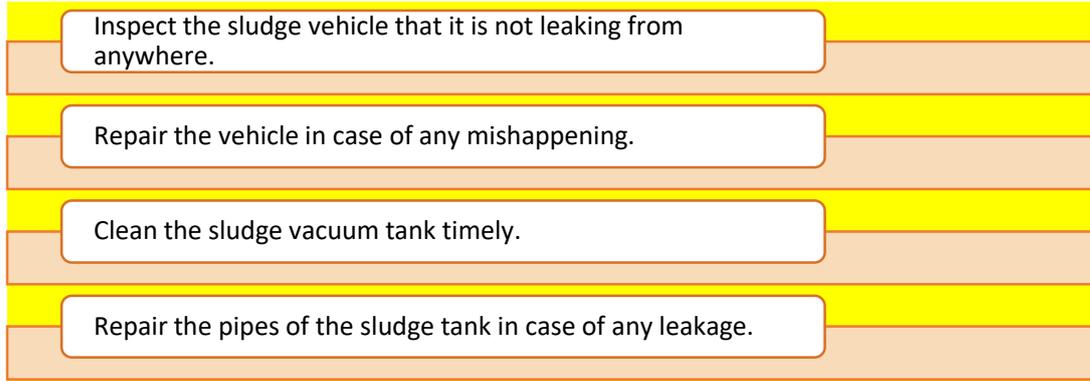
#### Common Issues

There are a number of common problems faced by a desludging operator such as :

- High capital cost needed in buying the sludge vacuum truck.
- High capital costs of Operation and Maintenance of vacuum truck.
- High capital cost in hiring the required human resources.
- Required Transport permit for the vehicle.
- Pollution control certificate for the vehicle.
- License from urban local bodies to provide the desludging services.
- Required parking space and registered office.
- Potential business for local job creation and income generation.
- Poor households can't start the business without support from the Government or Bank.

### 6.2.1 Repair and Maintenance

To repair and maintain the sludge vehicle and sludge vacuum tank, a desludging operator takes the following measures:



*Fig. 6.2.1: Repair and maintenance activities*

#### **Maintain the log book of disposal site visit**

It is the responsibility of a desludging operator to maintain the complete details of the whole desludging process. He should record every detail of the customers, their requirements, every visit made to the disposal site, disposed quantity, repair works, maintenance duration etc. These records will help him to take future decisions and work as per the requirements.

#### **Carry out cleaning of sludge vacuum tank after disposal**

After disposing the sludge to the identified location, the desludging operator is required to clean the vacuum tank for reuse purposes and also, clean the surrounding area to keep it safe and disease-free.

**Exercise**



1. What are the minimum requirements to start the desludging service entrepreneurship?

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2. What are the challenges of setting up a desludging business?

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## 7. Working Effectively with Co-Workers

Unit 7.1 - Reporting structure

Unit 7.2 - Work ethics and etiquettes

Unit 7.3 - Drug free workplace rules

Unit 7.4 - Information and data security rules

Unit 7.5 - Risk management at workplace rules

Unit 7.6 - Diversity and inclusion at workplace rules

Unit 7.7 - Facilitating the co-workers at FSSM while field visit or any investigations

Unit 7.8 - Working effectively with co-workers



## Key Learning Outcomes



**At the end of this module, you will be able to:**

1. Identify ways to assist colleagues positively to maximize effectiveness and efficiency in carrying out tasks
2. Discuss importance of work culture
3. Demonstrate appropriate communication etiquette and dressing at work place
4. Demonstrate responsible and disciplined behaviours at the workplace
5. Identify ways to put up grievances and problems to appropriate authority
6. Demonstrate collaboration and group participation to achieve common goals

## UNIT 7.1: Reporting Structure

### Unit Objectives

At the end of this unit, you will be able to:

1. Follow the reporting structure at the organization.



## UNIT 7.2: Work Ethics and Etiquettes

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Demonstrate the work ethics and etiquette to be followed.

You must understand that your behaviour serves as an example for other workers of FSTP. Your work ethic and etiquettes will set standards for how FSTP workers are expected to behave.

In addition to the professional duties, you shall:

#### 1. Protect treatment plant infrastructure and the environment

- Properly and consciously operate and maintain the treatment plant
- Follow safe operating procedures
- Report to higher authority (plant manager/supervisor) of any violations of plant machineries and/or workers immediately
- Protect and wisely use resources and funds allocated for operation and maintenance of the treatment facility
- Strive to maintain the aesthetics of the treatment plant



#### 2. Health and Welfare of the employees

- Always consider personal safety, the safety of fellow workers and any other person or visitor present within the FSTP boundary
- Communicate with each other and share experiences to promote the expansion of knowledge and valuable information



#### 3. Properly and accurately fill record books and/or make reports

- Be truthful in data representation
- Acknowledge errors and do not distort any fact or incident



**4. Avoid unprofessional activities**

- Always be honest and truthful
- Always be on time
- Always respect your co-workers and managers. Do not intimidate and/or bully other workers
- Always use professional language in reports and in professional meetings
- Avoid the use of cell phones on duty unless it is an emergency
- Accept personal responsibility for your actions and do not criticise others untruthfully
- Do not wear inappropriate clothing to work
- Do not use loud, offensive or abusive language



## UNIT 7.3: Drug Free Workplace Rules

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the rules to be followed to make the workplace drug-free.

A drug free workspace policy is required to protect any employee who may be working under the influence of alcohol or drugs from injuring himself or another employee. It can also help in avoiding other negative impacts of being under the influence of alcohol or drug such as absenteeism, lower productivity, unethical behaviour etc.

A drug-free workspace policy includes the following points (Ellen Aldridge, 2008)

- It is prohibited for the FSTP employees to possess, sell, consume, or be under the influence of alcoholic beverages or illegal drug while in the office and during working hours outside the office.
- It is not permitted for the FSTP employees to smoke in the FSTP premises, with the exception of the allocated smoking area
- Any FSTP employee who is under the influence of over-the-counter or prescription pills that may affect the safety of others and the ability to safely perform the job must inform the plant supervisor before starting or resuming work.
- Disciplinary action in the form of verbal warning, written warning, suspension or termination will be taken (depending on the gravity of the situation) against anyone who violates the rules.

It is your responsibility to ensure that the above-mentioned policy is adhered to. If any worker is found to be consuming alcohol/drug or smoking outside the allocated space, they should be stopped immediately and the plant supervisor or manager should be made aware of this breach of policy.

## UNIT 7.4: Information and Data Security Rules

### Unit Objectives

At the end of this unit, you will be able to:

1. Identify the rules of data security.

Every organization has an obligation to keep certain information confidential and the kind of information which needs to be shared with the public.

Following are the information of confidential report which can be shared only after getting permission from plant manager

<p>Reports on Lab results</p> 	<p>FSTP Employee details (name, contact details, performance reviews, pay scale, health related information etc.)</p> 	<p>Reports on operating expenses and revenue generation</p> 
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Following promotional materials or PR materials can be shared with public

<p>Brochures and flyers giving the overview of treatment plant</p> 	<p>Brochures to describe the treatment technology of the treatment plant</p> 	<p>Written policy documents of the treatment plant</p> 
<p>Advertorials as news stories and reviews on newspaper</p> 	<p>Reports on Operation and maintenance activities</p> 	<p>E-newsletter to keep the public informed on the amount of FS treated, population served etc.</p> 

## UNIT 7.5: Risk Management at Workplace Rules

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Manage the risks at a workplace.

Anything that disrupts the workspace, impacts on the productivity of workers or poses a threat to other employees is called a risk and it needs addressing. Following table describes the type of risk and respective risk management rules to be followed:

Type of risk	Risk management rules
Health and Safety	Covered in Chapter 5 and Chapter 6
Interpersonal conflict	<ol style="list-style-type: none"> <li>1. Be open to negotiation,</li> <li>2. Never show favouritism,</li> <li>3. Be humble of your capabilities and invite contribution from others</li> <li>4. Have an open discussion with your colleague and brainstorm suggestions and solutions to solve the conflict</li> </ol>
Communication issues	<ol style="list-style-type: none"> <li>1. Conduct a private meeting and try to identify the cause of the issue, it can be hesitation, ego, unapproachability, confusion in the reporting structure etc.</li> <li>2. Find a common solution</li> </ol>
Harassment	<ol style="list-style-type: none"> <li>1. Allow the workers to express themselves clearly</li> <li>2. Find out whether the employee's allegations are true or not</li> <li>3. Take necessary action after discussion with plant authority</li> </ol>
Discrimination	<ol style="list-style-type: none"> <li>1. Follow the rules mentioned in <b>Diversity and inclusion</b> at workplace rules to be followed</li> </ol>
Pay discrepancies	<ol style="list-style-type: none"> <li>1. Firstly, there should not be any discrepancies in pay based on class, colour or creed</li> <li>2. The pay scale should be based only on qualification and the job description</li> </ol>
Workspace theft	<ol style="list-style-type: none"> <li>1. Be sure to keep your workspace clean and organization</li> <li>2. Keep valuable personal items in lockers</li> <li>3. Keep an inventory of plant equipment</li> <li>4. Do not let unauthorized person to enter the FSTP</li> <li>5. Do not let unauthorized entry into store rooms without prior permission</li> <li>6. Install CCTV in store rooms and other areas where FSTP supplies are kept</li> </ol>

Table 7.5.1: Risk management at work place

## UNIT 7.6: Diversity and Inclusion at Workplace Rules

### Unit Objectives

**At the end of this unit, you will be able to:**

1. List the elements required to maintain diversity and inclusion at workplace.

FSTPs can be national and international workspaces with employees who come from a wide variety of backgrounds. Diversity typically includes, but is not limited to, differences in race, gender, sexual orientation, gender identity or expression, political and religious affiliation, socioeconomic background, cultural background, geographic location, physical disabilities and abilities, relationship status, veteran status, and age (Diversity and Inclusion, n.d.).

As the FSTP technician, you are closely involved with the superiors and your subordinates, thus, you can play an important role in delivering workspace inclusion by being vocal about the benefits of working with people from diverse background, and make others believe that workspace inclusion can drive stronger better performance and results.

The following diagram shows the key elements of a diverse and inclusive workspace which must be considered to mitigate risks which can arise out of working with co-workers from diverse backgrounds.

Refer Risk management at workplace rules, increase productivity and for the betterment of the FSTP.



*Fig. 7.6.1: Four Key elements of Diversity and Inclusion*

- Employees should be treated equitably and with respect, participation without favouritism is the key.
- Every employee should feel valued, they should believe their individuality is respected by others and at the same time should feel connected with the team
- Every employee should feel safe to speak up and be open without feeling judged or embarrassed
- When employees are confident with themselves, they feel empowered and give their best in the job which helps them grow along.

General points to be kept in mind:

- Do use a common language understood by all while speaking to a group
- Do speak to everyone with respect in the workspace, interact with all co-workers without discrimination
- Do not bully or make anyone feel inferior or left out
- Do have open discussions and involve everyone
- If possible, conduct informal get-togethers, celebrate festivals. It will help in engaging every employee, improving the organization culture and making the employees feel appreciated.

## UNIT 7.7: Facilitating the Co-workers at FSSM while Field Visit or any Investigations

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Facilitate the field visit for co-workers and other visitors.

Before the site/field visit ensure that you have the following:

- The list of visitors with respective contact details
- Purpose of visit and the agenda
- Time of arrival
- Duly signed permission letter for a guided field visit

During the site visit, you are expected to:

- Welcome everyone and review the agenda with everyone
- Distribute PPE (gloves and masks) to the visitors and instruct them to return it once the visit is over
- Introduce the staff and their job description
- Introduce the FSTP and give an overview of the technology
- Guide the group of visitors or investigators to each treatment unit one by one
  - Introduction of the list of equipment in the FSTP
  - Function of each equipment
  - Daily operational activity of each equipment and briefly explain the challenges, risks and mitigation procedures
- Address the queries clearly and appropriately
- Post the site visit
  - Make a note of the number of visitors and the organizations represented.
  - Conduct a short meeting with plant manager, supervisor and your co-workers to review the visit and identify areas of improvement.

## UNIT 7.8: Working Effectively with others

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Illustrate how to work effectively with co-workers.

Since you will be working mostly in teams it is very important to develop good habits to work effectively with co-workers. Following characteristics are required to work effectively with co-workers:

- Be honest and straight-forward
- Do share the load equally and assist others if required
- Treat others with respect and dignity
- Be an active listener and speak with discretion when communicating with your colleagues
- Acknowledge the contribution of your team members

#### 7.8.1 Assisting co-workers in Performing the Tasks

- Show your staff and colleagues that you support them in their tasks in order to promote productivity and a healthy working environment.
- Every new employee should be trained properly before the commencement of work.
- Conduct periodic reviews on our co-workers work and assist wherever required.

#### 7.8.2 Communicating and Behaving with the co-workers while Working in the Group

When you're working with a team, make sure to gather everyone's opinion and best ideas. It is also important to use their time and energy efficiently. Following are the points to be considered:

- Always be humble and open to suggestions
- Communicate your views openly using the correct language with respect
- Allow people to share alternative ideas
- Always explain your decision and give reasons behind your choice
- If you're the leader, delegate tasks as per a person's capability and area of expertise and briefly explain what needs to be done and why.

### 7.8.3 Work with the co-workers to Achieve the Common Goals

The FSTP will perform better when all the employees cooperate with each other and work effectively as a team. It signifies that everyone is working towards a common goal and in doing so they are sharing their own expertise and skills while cooperating with each other. Also, workers will be more engaged, effective and active in their work when they know how their contribution is helping in achieving common organizational goals.

### 7.8.4 How to Express the Grievances and Problems to the Appropriate Authority?

#### Define Grievances

Grievances is basically a feeling of resentment which can be against a supervisor, co-worker, machine, equipment, about the environment, against workload etc. A large number of work stoppages, strikes can be a result of faulty handling of grievances. The cost of grievances can be very high in terms of loss of time, poor work, damage to plant machineries due to neglect, conflict and so on (Chaudhary, 2005). Thus, it is your responsibility and duty to address grievances and problems at the FSTP, thus, you must equip yourself with the knowledge and skill required to handle grievances without being biased. There can be certain situations where the plant manager or supervisor needs to be involved

Grievances can be individual or group. In case of an individual grievance, it is not required to involve higher authorities, a one-on-one conversation and discussion of the problem can help in solving the issue. It does not need to be very formal and elaborate. In case of group grievances, they can make a formal written expression of the grievance and it should be brought to the attention of the plant manager and supervisor.

Following is the general outline of a typical grievance process:

- Express your problem with your immediate supervisor either verbally or in writing
- Your supervisor can deal with the grievance/problem on his own or pass it on to the higher authority
- Conduct a formal meeting between the staff and plant authority where everyone can present their side, discuss and resolve the issue
- Gather information and relevant data, investigate the situation
- Take a final decision after reviewing with seniors keeping in mind the benefit of the treatment facility

Expressing grievances is a skill. You can keep the following points in your mind when you want to make any such kind of conversation:

- Use positive language while reporting a complaint to your senior
- Remain assertive when under pressure
- Ask questions calmly. Do not intimidate or interrogate.
- Aim to achieve a win/win outcome for both the parties
- Honour the commitments and promises made to resolve the issues

## Exercise



1. What are the four key elements of inclusive workspace?

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2. What is grievance?

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3. Should you ask for suggestions before taking a decision? (yes/no)

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### True or false

	T/F
1. Laborer reports directly to plant manager	
2. Smoking is allowed in the FSTP when not in duty	
3. PR materials can be shared with public	
4. Do not inform anyone if you feel discriminated	

## Summary

This unit covers the importance and the correct way of working effectively with co-workers, importance of diversity and inclusion in an organization, best practices for a diverse and inclusive work culture, procedure for risk mitigation and addressing grievances.



## 8. Employability & Entrepreneurship Skills



Unit 8.1 - Personal Strengths & Value Systems

Unit 8.2 - Digital Literacy: A Recap

Unit 8.3 - Money Matters

Unit 8.4 - Preparing for Employment & Self-Employment

Unit 8.5 - Understanding Entrepreneurship

Unit 8.6 - Preparing to be an Entrepreneur



## Key Learning Outcomes

**At the end of this module, you will be able to:**

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Discuss the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Discuss motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss the role of attitude in self-analysis
15. Discuss how to maintain a positive attitude
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management
32. Identify the basic parts of a computer
33. Identify the basic parts of a keyboard
34. Recall basic computer terminology
35. Recall the functions of basic computer keys
36. Discuss the main applications of MS Office
37. Discuss the benefits of Microsoft Outlook
38. Discuss the different types of e-commerce
39. List the benefits of e-commerce for retailers and customers
40. Discuss how the Digital India campaign will help boost e-commerce in India
41. Describe how you will sell a product or service on an e-commerce platform
42. Discuss the importance of saving money

43. Discuss the benefits of saving money
44. Discuss the main types of bank accounts
45. Describe the process of opening a bank account
46. Differentiate between fixed and variable costs
47. Describe the main types of investment options
48. Describe the different types of insurance products
49. Describe the different types of taxes
50. Discuss the uses of online banking
51. Discuss the main types of electronic funds transfers
52. Discuss the steps to prepare for an interview
53. Discuss the steps to create an effective Resume
54. Discuss the most frequently asked interview questions
55. Discuss how to answer the most frequently asked interview questions
56. Discuss basic workplace terminology
57. Discuss the concept of entrepreneurship
58. Discuss the importance of entrepreneurship
59. Describe the characteristics of an entrepreneur
60. Describe the different types of enterprises
61. List the qualities of an effective leader
62. Discuss the benefits of effective leadership
63. List the traits of an effective team
64. Discuss the importance of listening effectively
65. Discuss how to listen effectively
66. Discuss the importance of speaking effectively
67. Discuss how to speak effectively
68. Discuss how to solve problems
69. List important problem solving traits
70. Discuss ways to assess problem solving skills
71. Discuss the importance of negotiation
72. Discuss how to negotiate
73. Discuss how to identify new business opportunities
74. Discuss how to identify business opportunities within your business
75. Explain the meaning of entrepreneur
76. Describe the different types of entrepreneurs
77. List the characteristics of entrepreneurs
78. Recall entrepreneur success stories
79. Discuss the entrepreneurial process
80. Describe the entrepreneurship ecosystem
81. Discuss the purpose of the Make in India campaign
82. Discuss key schemes to promote entrepreneurs
83. Discuss the relationship between entrepreneurship and risk appetite
84. Discuss the relationship between entrepreneurship and resilience
85. Describe the characteristics of a resilient entrepreneur
86. Discuss how to deal with failure

87. Discuss how market research is carried out
88. Describe the 4 Ps of marketing
89. Discuss the importance of idea generation
90. Recall basic business terminology
91. Discuss the need for CRM
92. Discuss the benefits of CRM
93. Discuss the need for networking
94. Discuss the benefits of networking
95. Discuss the importance of setting goals
96. Differentiate between short-term, medium-term and long-term goals
97. Discuss how to write a business plan
98. Explain the financial planning process
99. Discuss ways to manage your risk
100. Describe the procedure and formalities for applying for bank finance
101. Discuss how to manage your own enterprise
102. List important questions that every entrepreneur should ask before starting an enterprise

## UNIT 8.1: Personal Strengths & Value Systems

### Unit Objectives

**At the end of this unit, participant will be able to:**

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Discuss the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Discuss motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss the role of attitude in self-analysis
15. Discuss how to maintain a positive attitude
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management

### 7.1.1 Health, Habits, Hygiene: What is Health?

As per the World Health Organization (WHO), health is a “State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.” This means being healthy does not simply mean not being unhealthy – it also means you need to be at peace emotionally, and feel fit physically. For example, you cannot say you are healthy simply because you do not have any physical ailments like a cold or cough. You also need to think about whether you are feeling calm, relaxed and happy.

#### Common Health Issues

Some common health issues are:

- Allergies
- Asthma
- Skin Disorders
- Depression and Anxiety
- Diabetes
- Cough, Cold, Sore Throat
- Difficulty Sleeping
- Obesity

### 8.1.1.1 Tips to Prevent Health Issues



Taking measures to prevent ill health is always better than curing a disease or sickness. You can stay healthy by:

- Eating healthy foods like fruits, vegetables and nuts
- Cutting back on unhealthy and sugary foods
- Drinking enough water everyday
- Not smoking or drinking alcohol
- Exercising for at least 30 minutes a day, 4-5 times a week
- Taking vaccinations when required
- Practicing yoga exercises and meditation

How many of these health standards do you follow? Tick the ones that apply to you.

1. Get minimum 7-8 hours of sleep every night.
2. Avoid checking email first thing in the morning and right before you go to bed at night.
3. Don't skip meals – eat regular meals at correct meal times.
4. Read a little bit every single day.
5. Eat more home cooked food than junk food.
6. Stand more than you sit.
7. Drink a glass of water first thing in the morning and have at least 8 glasses of water through the day.
8. Go to the doctor and dentist for regular check-ups.
9. Exercise for 30 minutes at least 5 days a week.
10. Avoid consuming lots of aerated beverages.

### 8.1.1.2 What is Hygiene?

As per the World Health Organization (WHO), “Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases.” In other words, hygiene means ensuring that you do whatever is required to keep your surroundings clean, so that you reduce the chances of spreading germs and diseases.

For instance, think about the kitchen in your home. Good hygiene means ensuring that the kitchen is always spick and span, the food is put away, dishes are washed and dustbins are not overflowing with garbage. Doing all this will reduce the chances of attracting pests like rats or cockroaches, and prevent the growth of fungus and other bacteria, which could spread disease.

How many of these health standards do you follow? Tick the ones that apply to you.

1. Have a bath or shower every day with soap – and wash your hair with shampoo 2-3 times a week.
2. Wear a fresh pair of clean undergarments every day.
3. Brush your teeth in the morning and before going to bed.
4. Cut your fingernails and toenails regularly.
5. Wash your hands with soap after going to the toilet.
6. Use an anti-perspirant deodorant on your underarms if you sweat a lot.
7. Wash your hands with soap before cooking or eating.
8. Stay home when you are sick, so other people don't catch what you have.
9. Wash dirty clothes with laundry soap before wearing them again.
10. Cover your nose with a tissue/your hand when coughing or sneezing.

See how healthy and hygienic you are, by giving yourself 1 point for every ticked statement! Then take a look at what your score means.

#### Your Score

- **0-7/20:** You need to work a lot harder to stay fit and fine! Make it a point to practice good habits daily and see how much better you feel!
- **7-14/20:** Not bad, but there is scope for improvement! Try and add a few more good habits to your daily routine.
- **14-20/20:** Great job! Keep up the good work! Your body and mind thank you!

### 8.1.1.3 Swachh Bharat Abhiyan

We have already discussed the importance of following good hygiene and health practices for ourselves. But, it is not enough for us to be healthy and hygienic. We must also extend this standard to our homes, our immediate surroundings and to our country as a whole.

The 'Swachh Bharat Abhiyan' (Clean India Mission) launched by Prime Minister Shri Narendra Modi on 2nd October 2014, believes in doing exactly this. The aim of this mission is to clean the streets and roads of India and raise the overall level of cleanliness. Currently this mission covers 4,041 cities and towns across the country. Millions of our people have taken the pledge for a clean India. You should take the pledge too, and do everything possible to keep our country clean!

### 8.1.1.4 What are Habits?

A habit is a behaviour that is repeated frequently. All of us have good habits and bad habits. Keep in mind the phrase by John Dryden: “We first make our habits, and then our habits make us.” This is why it is so important that you make good habits a way of life, and consciously avoid practicing bad habits.

Some good habits that you should make part of your daily routine are:

- Always having a positive attitude
- Making exercise a part of your daily routine
- Reading motivational and inspirational stories
- Smiling! Make it a habit to smile as often as possible
- Making time for family and friends
- Going to bed early and waking up early

Some bad habits that you should quit immediately are:

- Skipping breakfast
- Snacking frequently even when you are not hungry
- Eating too much fattening and sugary food
- Smoking, drinking alcohol and doing drugs
- Spending more money than you can afford
- Worrying about unimportant issues
- Staying up late and waking up late

### Tips



- Following healthy and hygienic practices every day will make you feel good mentally and physically.
- Hygiene is two-thirds of health – so good hygiene will help you stay strong and healthy!

### 8.1.2: Safety: Tips to Design a Safe Workplace

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Use ergonomically designed furniture and equipment to avoid stooping and twisting
- Provide mechanical aids to avoid lifting or carrying heavy objects
- Have protective equipment on hand for hazardous jobs
- Designate emergency exits and ensure they are easily accessible
- Set down health codes and ensure they are implemented
- Follow the practice of regular safety inspections in and around the workplace
- Ensure regular building inspections are conducted
- Get expert advice on workplace safety and follow it

### 8.1.2.1 Negotiable Employee Safety Habits

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Immediately report unsafe conditions to a supervisor
- Recognize and report safety hazards that could lead to slips, trips and falls
- Report all injuries and accidents to a supervisor
- Wear the correct protective equipment when required
- Learn how to correctly use equipment provided for safety purposes
- Be aware of and avoid actions that could endanger other people
- Take rest breaks during the day and some time off from work during the week

#### Tips



- Be aware of what emergency number to call at the time of a workplace emergency
- Practice evacuation drills regularly to avoid chaotic evacuations

### 8.1.3 Self-Analysis – Attitude, Achievement Motivation

To truly achieve your full potential, you need to take a deep look inside yourself and find out what kind of person you really are. This attempt to understand your personality is known as self-analysis. Assessing yourself in this manner will help you grow, and will also help you to identify areas within yourself that need to be further developed, changed or eliminated. You can better understand yourself by taking a deep look at what motivates you, what your attitude is like, and what your strengths and weaknesses are.

#### 8.1.3.1 What is Motivation?

Very simply put, motivation is your reason for acting or behaving in a certain manner. It is important to understand that not everyone is motivated by the same desires – people are motivated by many, many different things. We can understand this better by looking at Maslow's Hierarchy of Needs.

#### 8.1.3.2 Maslow's Hierarchy of Needs

Famous American psychologist Abraham Maslow wanted to understand what motivates people. He believed that people have five types of needs, ranging from very basic needs (called physiological needs) to more important needs that are required for self-growth (called self-actualization needs). Between the physiological and self-actualization needs are three other needs – safety needs, belongingness and love needs, and esteem needs.

These needs are usually shown as a pyramid with five levels and are known as Maslow's Hierarchy of Needs.

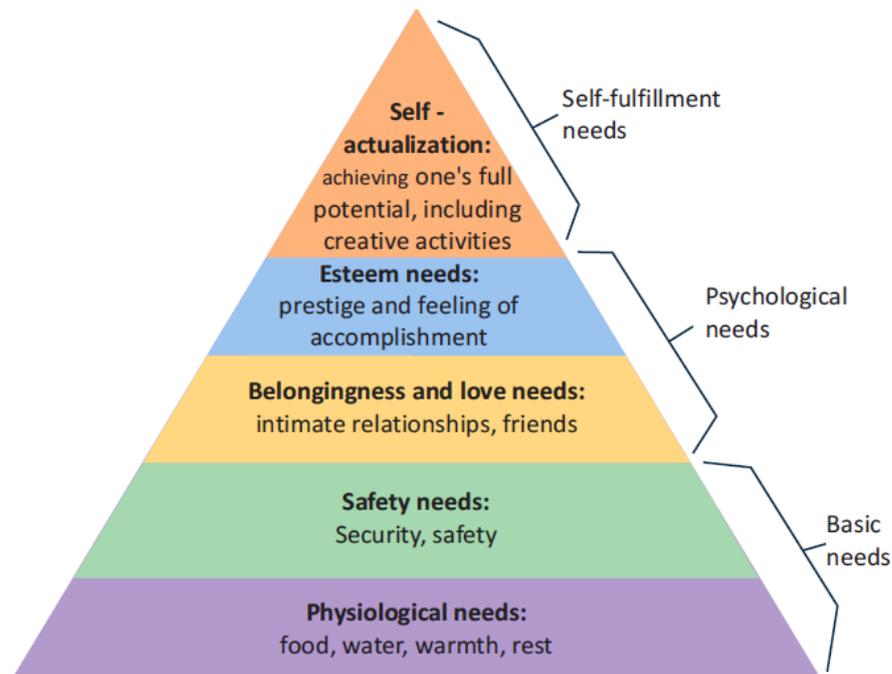


Fig. 8.1.1: Maslow's Hierarchy of Needs

The lowest level depicts the most basic needs. According to Maslow, our behaviour is driven by our basic needs, until those needs are fulfilled. Once they are fulfilled, we move to the next level and are motivated by the next level of needs. Let's understand this better with an example.

Rupa comes from a very poor family. She never has enough food, water, warmth or rest. According to Maslow, until Rupa is sure that she will get these basic needs, she will not even think about the next level of needs – her safety needs. But, once Rupa is confident that her basic needs will be met, she will move to the next level, and her behaviour will then be motivated by her need for security and safety. Once these new needs are met, Rupa will once again move to the next level, and be motivated by her need for relationships and friends. Once this need is satisfied, Rupa will then focus on the fourth level of needs – her esteem needs, after which she will move up to the fifth and last level of needs – the desire to achieve her full potential.

### 8.1.3.3 Understanding Achievement Motivation

We now know that people are motivated by basic, psychological and self-fulfillment needs. However, certain people are also motivated by the achievement of highly challenging accomplishments. This is known as Achievement Motivation, or 'need for achievement'.

The level of motivation achievement in a person differs from individual to individual. It is important that entrepreneurs have a high level of achievement motivation – a deep desire to accomplish something important and unique. It is equally important that they hire people who are also highly motivated by challenges and success.



### 8.1.3.4 How to Cultivate a Positive Attitude?

The good news is attitude is a choice. So, it is possible to improve, control and change our attitude, if we decide we want to!

The following tips help foster a positive mindset:

- Remember that you control your attitude, not the other way around
- Devote at least 15 minutes a day towards reading, watching or listening to something positive
- Avoid negative people who only complain and stop complaining yourself
- Expand your vocabulary with positive words and delete negative phrases from your mind
- Be appreciative and focus on what's good in yourself, in your life, and in others
- Stop thinking of yourself as a victim and start being proactive
- Imagine yourself succeeding and achieving your goals

### 8.1.3.5 What is Attitude?

Now that we understand why motivation is so important for self-analysis, let's look at the role our attitude plays in better understanding ourselves. Attitude can be described as your tendency (positive or negative), to think and feel about someone or something. Attitude is the foundation for success in every aspect of life. Our attitude can be our best friend or our worst enemy. In other words:

**“The only disability in life is a bad attitude.”**

When you start a business, you are sure to encounter a wide variety of emotions, from difficult times and failures to good times and successes. Your attitude is what will see you through the tough times and guide you towards success. Attitude is also infectious. It affects everyone around you, from your customers to your employees to your investors. A positive attitude helps build confidence in the workplace while a negative attitude is likely to result in the demotivation of your people.

### 8.1.3.6 What Are Your Strengths and Weaknesses?

Another way to analyse yourself is by honestly identifying your strengths and weaknesses. This will help you use your strengths to your best advantage and reduce your weaknesses.

Note down all your strengths and weaknesses in the two columns below. Remember to be honest with yourself!

Strengths	Weaknesses

## Tips



- Achievement motivation can be learned.
- Don't be afraid to make mistakes.
- Train yourself to finish what you start.
- Dream big.

## 8.1.4 Honesty & Work Ethics: What is Honesty?

Honesty is the quality of being fair and truthful. It means speaking and acting in a manner that inspires trust. A person who is described as honest is seen as truthful and sincere, and as someone who isn't deceitful or devious and doesn't steal or cheat. There are two dimensions of honesty – one is honesty in communication and the other is honesty in conduct.

Honesty is an extremely important trait because it results in peace of mind and builds relationships that are based on trust. Being dishonest, on the other hand, results in anxiety and leads to relationships full of distrust and conflict.

### 8.1.4.1 Qualities of Honest People

Honest individuals have certain distinct characteristics. Some common qualities among honest people are:

- They don't worry about what others think of them. They believe in being themselves – they don't bother about whether they are liked or disliked for their personalities.
- They stand up for their beliefs. They won't think twice about giving their honest opinion, even if they are aware that their point of view lies with the minority.
- They are thick skinned. This means they are not affected by others judging them harshly for their honest opinions.
- They forge trusting, meaningful and healthy friendships. Honest people usually surround themselves with honest friends. They have faith that their friends will be truthful and upfront with them at all times.

They are trusted by their peers. They are seen as people who can be counted on for truthful and objective feedback and advice.

- **Honesty and employees:** When entrepreneurs build honest relationships with their employees, it leads to more transparency in the workplace, which results in higher work performance and better results.
- **Honesty and investors:** For entrepreneurs, being honest with investors means not only sharing strengths but also candidly disclosing current and potential weaknesses, problem areas and solution strategies. Keep in mind that investors have a lot of experience with startups and are aware that all new companies have problems. Claiming that everything is perfectly fine and running smoothly is a red flag for most investors.

- **Honesty with oneself:** The consequences of being dishonest with oneself can lead to dire results, especially in the case of entrepreneurs. For entrepreneurs to succeed, it is critical that they remain realistic about their situation at all times, and accurately judge every aspect of their enterprise for what it truly is.

#### 8.1.4.2 Importance of Honesty in Entrepreneurs

One of the most important characteristics of entrepreneurs is honesty. When entrepreneurs are honest with their customers, employees and investors, it shows that they respect those that they work with. It is also important that entrepreneurs remain honest with themselves.

Let's look at how being honest would lead to great benefits for entrepreneurs.

- **Honesty and customers:** When entrepreneurs are honest with their customers it leads to stronger relationships, which in turn results in business growth and a stronger customer network.

#### 8.1.4.3 What are Work Ethics?

Being ethical in the workplace means displaying values like honesty, integrity and respect in all your decisions and communications. It means not displaying negative qualities like lying, cheating and stealing.

Workplace ethics play a big role in the profitability of a company. It is as crucial to an enterprise as high morale and teamwork. This is why most companies lay down specific workplace ethic guidelines that must compulsorily be followed by their employees. These guidelines are typically outlined in a company's employee handbook.

#### 8.1.4.4 Elements of a Strong Work Ethic

An entrepreneur must display strong work ethics, as well as hire only those individuals who believe in and display the same level of ethical behavior in the workplace. Some elements of a strong work ethic are:

- **Professionalism:** This involves everything from how you present yourself in a corporate setting to the manner in which you treat others in the workplace.
- **Respectfulness:** This means remaining poised and diplomatic regardless of how stressful or volatile a situation is.
- **Dependability:** This means always keeping your word, whether it's arriving on time for a meeting or delivering work on time.
- **Dedication:** This means refusing to quit until the designated work is done, and completing the work at the highest possible level of excellence.
- **Determination:** This means embracing obstacles as challenges rather than letting them stop you, and pushing ahead with purpose and resilience to get the desired results.

- **Accountability:** This means taking responsibility for your actions and the consequences of your actions, and not making excuses for your mistakes.
- **Humility:** This means acknowledging everyone's efforts and hard work, and sharing the credit for accomplishments.

#### 8.1.4.5 How to Foster a Good Work Ethic?

As an entrepreneur, it is important that you clearly define the kind of behaviour that you expect from each and every team member in the workplace. You should make it clear that you expect employees to display positive work ethics like:

- **Honesty:** All work assigned to a person should be done with complete honesty, without any deceit or lies.
- **Good attitude:** All team members should be optimistic, energetic, and positive.
- **Reliability:** Employees should show up where they are supposed to be, when they are supposed to be there.
- **Good work habits:** Employees should always be well groomed, never use inappropriate language, conduct themselves professionally at all times and so on.
- **Initiative:** Doing the bare minimum is not enough. Every team member needs to be proactive and show initiative.
- **Trustworthiness:** Trust is non-negotiable. If an employee cannot be trusted, it's time to let that employee go.
- **Respect:** Employees need to respect the company, the law, their work, their colleagues and themselves.
- **Integrity:** Each and every team member should be completely ethical and must display above board behaviour at all times.
- **Efficiency:** Efficient employees help a company grow while inefficient employees result in a waste of time and resources.

#### Tips

- Don't get angry when someone tells you the truth and you don't like what you hear.
- Always be willing to accept responsibility for your mistakes.

#### 8.1.5 Creativity & Innovation

##### What is Creativity?

Creativity means thinking outside the box. It means viewing things in new ways or from different perspectives, and then converting these ideas into reality. Creativity involves two parts: thinking and producing. Simply having an idea makes you imaginative, not creative. However, having an idea and acting on it makes you creative.

### Characteristics of Highly Creative People

Some characteristics of creative people are:

- They are imaginative and playful
- They see issues from different angles
- They notice small details
- They have very little tolerance for boredom
- They detest rules and routine
- They love to daydream
- They are very curious

### What is Innovation?

There are many different definitions of innovation. In simple terms, innovation means turning an idea into a solution that adds value. It can also mean adding value by implementing a new product, service or process, or significantly improving on an existing product, service or process.

### Characteristics of Highly Innovative People

Some characteristics of highly innovative people are:

- They embrace doing things differently
- They don't believe in taking shortcuts
- They are not afraid to be unconventional
- They are highly proactive and persistent
- They are organized, cautious and risk-averse

### Tips



- Take regular breaks from your creative work to recharge yourself and gain fresh perspective.
- Build prototypes frequently, test them out, get feedback, and make the required changes.

## 8.1.6 Time Management

Time management is the process organizing your time, and deciding how to allocate your time between different activities. Good time management is the difference between working smart (getting more done in less time) and working hard (working for more time to get more done).

Effective time management leads to an efficient work output, even when you are faced with tight deadlines and high pressure situations. On the other hand, not managing your time effectively results in inefficient output and increases stress and anxiety.

### **Benefits of Time Management**

Time management can lead to huge benefits like:

- Greater productivity
- Higher efficiency
- Better professional reputation
- Reduced stress
- Higher chances for career advancement
- Greater opportunities to achieve goals

Not managing time effectively can result in undesirable consequences like:

- Missing deadlines
- Inefficient work output
- Substandard work quality
- Poor professional reputation
- Stalled career
- Increase in stress and anxiety

### **8.1.6.1 Traits of Effective Time Managers**

Some traits of effective time managers are:

- They begin projects early
- They set daily objectives
- They modify plans if required, to achieve better results
- They are flexible and open-minded
- They inform people in advance if their help will be required
- They know how to say no
- They break tasks into steps with specific deadlines
- They continually review long term goals
- They think of alternate solutions if and when required
- They ask for help when required
- They create backup plans

### 8.1.6.2 Effective Time Management Techniques

You can manage your time better by putting into practice certain time management techniques. Some helpful tips are:

- **Plan out your day as well as plan for interruptions.** Give yourself at least 30 minutes to figure out your time plan. In your plan, schedule some time for interruptions.
- **Put up a “Do Not Disturb” sign** when you absolutely have to complete a certain amount of work.
- **Close your mind to all distractions.** Train yourself to ignore ringing phones, don't reply to chat messages and disconnect from social media sites.
- **Delegate your work.** This will not only help your work get done faster, but will also show you the unique skills and abilities of those around you.
- **Stop procrastinating.** Remind yourself that procrastination typically arises due to the fear of failure or the belief that you cannot do things as perfectly as you wish to do them.
- **Prioritize.** List each task to be completed in order of its urgency or importance level. Then focus on completing each task, one by one.
- **Maintain a log of your work activities.** Analyse the log to help you understand how efficient you are, and how much time is wasted every day.
- **Create time management goals** to reduce time wastage.

#### Tips

- Always complete the most important tasks first.
- Get at least 7 – 8 hours of sleep every day.
- Start your day early.
- Don't waste too much time on small, unimportant details.
- Set a time limit for every task that you will undertake.
- Give yourself some time to unwind between tasks.

### 8.1.7 Anger Management

Anger management is the process of:

1. Learning to recognize the signs that you, or someone else, is becoming angry
2. Taking the best course of action to calm down the situation in a positive way

Anger management does not mean suppressing anger.

#### Importance of Anger Management

Anger is a perfectly normal human emotion. In fact, when managed the right way, anger can be considered a healthy emotion. However, if it is not kept in check, anger can make us act inappropriately and can lead to us saying or doing things that we will likely later regret.

Extreme anger can:

- **Hurt you physically:** It leads to heart disease, diabetes, a weakened immune system, insomnia, and high blood pressure.
- **Hurt you mentally:** It can cloud your thinking and lead to stress, depression and mental health issues.
- **Hurt your career:** It can result in alienating your colleagues, bosses, clients and lead to the loss of respect.
- **Hurt your relationships:** It makes it hard for your family and friends to trust you, be honest with you and feel comfortable around you.

This is why anger management, or managing anger appropriately, is so important.

### 8.1.7.1 Anger Management Strategies

Here are some strategies that can help you control your anger:

#### Strategy 1: Relaxation

Something as simple as breathing deeply and looking at relaxing images works wonders in calming down angry feelings. Try this simple breathing exercise:

1. Take a deep breath from your diaphragm (don't breathe from your chest)
2. Visualize your breath coming up from your stomach
3. Keep repeating a calming word like 'relax' or 'take it easy' (remember to keep breathing deeply while repeating the word)
4. Picture a relaxing moment (this can be from your memory or your imagination)

Follow this relaxation technique daily, especially when you realize that you're starting to feel angry.

#### Strategy 2: Cognitive Restructuring

Cognitive restructuring means changing the manner in which you think. Anger can make you curse, swear, exaggerate and act very dramatically. When this happens, force yourself to replace your angry thoughts with more logical ones. For instance, instead of thinking 'Everything is ruined' change your mindset and tell yourself 'It's not the end of the world and getting angry won't solve this'.

#### Strategy 3: Problem Solving

Getting angry about a problem that you cannot control is a perfectly natural response. Sometimes, try as you may, there may not be a solution to the difficulty you are faced with. In such cases, stop focusing on solving the problem, and instead focus on handling and facing the problem. Remind yourself that you will do your best to deal with the situation, but that you will not blame yourself if you don't get the solution you desire.

**Strategy 4: Better Communication**

When you're angry, it is very easy to jump to inaccurate conclusions. In this case, you need to force yourself to stop reacting, and think carefully about what you want to say, before saying it. Avoid saying the first thing that enters your head. Force yourself to listen carefully to what the other person is saying. Then think about the conversation before responding.

**Strategy 5: Changing Your Environment**

If you find that your environment is the cause of your anger, try and give yourself a break from your surroundings. Make an active decision to schedule some personal time for yourself, especially on days that are very hectic and stressful. Having even a brief amount of quiet or alone time is sure to help calm you down.

**8.1.7.2 Tips for Anger Management**

The following tips will help you keep your anger in check:

- Take some time to collect your thoughts before you speak out in anger.
- Express the reason for your anger in an assertive, but non-confrontational manner once you have calmed down.
- Do some form of physical exercise like running or walking briskly when you feel yourself getting angry.
- Make short breaks part of your daily routine, especially during days that are stressful.
- Focus on how to solve a problem that's making you angry, rather than focusing on the fact that the problem is making you angry.

**8.1.8 Stress Management**

We say we are 'stressed' when we feel overloaded and unsure of our ability to deal with the pressures placed on us. Anything that challenges or threatens our well-being can be defined as a stress. It is important to note that stress can be good and bad. While good stress keeps us going, negative stress undermines our mental and physical health. This is why it is so important to manage negative stress effectively.

**Causes of Stress**

Stress can be caused by internal and external factors.

**Internal causes of stress**

- Constant worry
- Rigid thinking
- Unrealistic expectations
- Pessimism
- Negative self-talk
- All in or all out attitude

**External causes of stress**

- Major life changes
- Difficulties with relationships
- Having too much to do
- Difficulties at work or in school
- Financial difficulties
- Worrying about one's children and/or family

**8.1.8.1 Symptoms of Stress**

Stress can manifest itself in numerous ways. Take a look at the cognitive, emotional, physical and behavioural symptoms of stress.

<b>Cognitive Symptoms</b>	<b>Emotional Symptoms</b>
<ul style="list-style-type: none"> <li>• Memory problems</li> <li>• Concentration issues</li> <li>• Lack of judgement</li> <li>• Pessimism</li> <li>• Anxiety</li> <li>• Constant worrying</li> </ul>	<ul style="list-style-type: none"> <li>• Depression</li> <li>• Agitation</li> <li>• Irritability</li> <li>• Loneliness</li> <li>• Anxiety</li> <li>• Anger</li> </ul>

*Fig.7.1.2: Stress symptoms*

<b>Physical Symptoms</b>	<b>Behavioural Symptoms</b>
<ul style="list-style-type: none"> <li>• Aches and pain</li> <li>• Diarrhoea or constipation</li> <li>• Nausea</li> <li>• Dizziness</li> <li>• Chest pain and/or rapid heartbeat</li> <li>• Frequent cold or flu like feelings</li> </ul>	<ul style="list-style-type: none"> <li>• Increase or decrease in appetite</li> <li>• Over sleeping or not sleeping enough</li> <li>• Withdrawing socially</li> <li>• Ignoring responsibilities</li> <li>• Consumption of alcohol or cigarettes</li> <li>• Nervous habits like nail biting and pacing</li> </ul>

*Fig.8.1.3: Stress symptoms*

### 8.1.8.2 Tips to Manage Stress

The following tips can help you manage your stress better:

- Note down the different ways in which you can handle the various sources of your stress.
- Remember that you cannot control everything, but you can control how you respond.
- Discuss your feelings, opinions and beliefs rather than reacting angrily, defensively or passively.
- Practice relaxation techniques like meditation, yoga or tai chi when you start feeling stressed.
- Devote a part of your day towards exercise.
- Eat healthy foods like fruits and vegetables. Avoid unhealthy foods especially those containing large amounts of sugar.
- Plan your day so that you can manage your time better, with less stress.
- Say no to people and things when required.
- Schedule time to pursue your hobbies and interests.
- Ensure you get at least 7-8 hours of sleep.
- Reduce your caffeine intake.
- Increase the time spent with family and friends.

## UNIT 8.2: Digital Literacy: A Recap

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Identify the basic parts of a computer
2. Identify the basic parts of a keyboard
3. Recall basic computer terminology
4. Recall the functions of basic computer keys
5. Discuss the main applications of MS Office
6. Discuss the benefits of Microsoft Outlook
7. Discuss the different types of e-commerce
8. List the benefits of e-commerce for retailers and customers
9. Discuss how the Digital India campaign will help boost e-commerce in India
10. Describe how you will sell a product or service on an e-commerce platform

### 8.2.1 Computer and Internet Basics

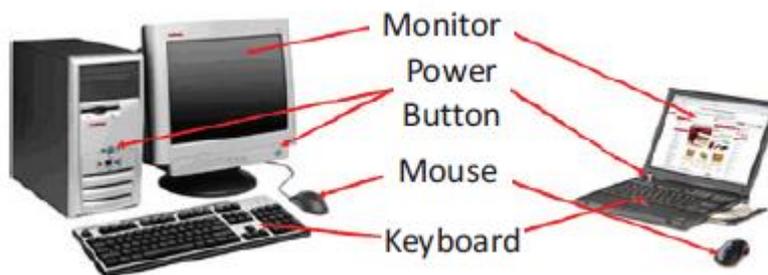


Fig.7.2.1. Parts of a Computer

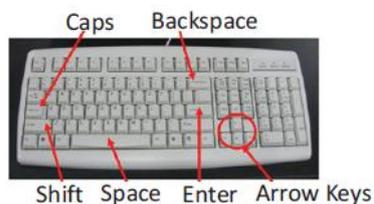


Fig.8.2.2. Parts of a Keyboard

#### Basic Parts of a Computer

1. **Central Processing Unit (CPU):** The brain of the computer. It interprets and carries out program instructions.
2. **Hard Drive:** A device that stores large amounts of data.
3. **Monitor:** The device that contains the computer screen where the information is visually displayed.

4. **Desktop:** The first screen displayed after the operating system loads.
5. **Background:** The image that fills the background of the desktop.
6. **Mouse:** A hand-held device used to point to items on the monitor.
7. **Speakers:** Devices that enable you to hear sound from the computer.
8. **Printer:** A device that converts output from a computer into printed paper documents.
9. **Icon:** A small picture or image that visually represents something on your computer.
10. **Cursor:** An arrow which indicates where you are positioned on the screen.
11. **Program Menu:** A list of programs on your computer that can be accessed from the Start menu.
12. **Taskbar:** The horizontal bar at the bottom of the computer screen that lists applications that are currently in use.
13. **Recycle Bin:** A temporary storage for deleted files.

### Basic Internet Terms

- **The Internet:** A vast, international collection of computer networks that transfers information.
- **The World Wide Web:** A system that lets you access information on the Internet.
- **Website:** A location on the World Wide Web (and Internet) that contains information about a specific topic.
- **Homepage:** Provides information about a website and directs you to other pages on that website.
- **Link/Hyperlink:** A highlighted or underlined icon, graphic, or text that takes you to another file or object.
- **Web Address/URL:** The address for a website.
- **Address Box:** A box in the browser window where you can type in a web address.

### Basic Computer Keys

- **Arrow Keys:** Press these keys to move your cursor.
- **Space bar:** Adds a space.
- **Enter/Return:** Moves your cursor to a new line.
- **Shift:** Press this key if you want to type a capital letter or the upper symbol of a key.
- **Caps Lock:** Press this key if you want all the letters you type to be capital letters. Press it again to revert back to typing lowercase letters.
- **Backspace:** Deletes everything to the left of your cursor

### Tips



- When visiting a .com address, there no need to type http://or even www. Just type the name of the website and then press Ctrl + Enter. (Example: Type 'apple' and press Ctrl + Enter to go to www.apple.com)
- Press the Ctrl key and press the + or - to increase and decrease the size of text.
- Press F5 or Ctrl + R to refresh or reload a web page.

## 8.2.2 MS Office and Email

### About MS Office

MS Office or Microsoft Office is a suite of computer programs developed by Microsoft. Although meant for all users, it offers different versions that cater specifically to students, home users and business users. All the programs are compatible with both, Windows and Macintosh.

### Most Popular Office Products

Some of the most popular and universally used MS Office applications are:

- **Microsoft Word:** Allows users to type text and add images to a document.
- **Microsoft Excel:** Allows users to enter data into a spreadsheet and create calculations and graphs.
- **Microsoft PowerPoint:** Allows users to add text, pictures and media and create slideshows and presentations.
- **Microsoft Outlook:** Allows users to send and receive email.
- **Microsoft OneNote:** Allows users to make drawings and notes with the feel of a pen on paper.
- **Microsoft Access:** Allows users to store data over many tables.

### Why Choose Microsoft Outlook?

A popular email management choice especially in the workplace, Microsoft Outlook also includes an address book, notebook, web browser and calendar. Some major benefits of this program are:

- **Integrated search function:** You can use keywords to search for data across all Outlook programs.
- **Enhanced security:** Your email is safe from hackers, junk mail and phishing website email.
- **Email syncing:** Sync your mail with your calendar, contact list, notes in One Note and...your phone!
- **Offline access to email:** No Internet? No problem! Write emails offline and send them when you're connected again.

### Tips



- Press Ctrl+R as a shortcut method to reply to email.
- Set your desktop notifications only for very important emails.
- Flag messages quickly by selecting messages and hitting the Insert key.
- Save frequently sent emails as a template to reuse again and again.
- Conveniently save important emails as files.

## 8.2.3 E-Commerce

### What is E-Commerce?

E-commerce is the buying or selling of goods and services, or the transmitting of money or data, electronically on the internet. E-Commerce is the short form for “electronic commerce.”

### Examples of E-Commerce

Some examples of e-commerce are:

- Online shopping
- Online auctions
- Online ticketing
- Electronic payments
- Internet banking

### Types of E-Commerce

E-commerce can be classified based on the types of participants in the transaction. The main types of e-commerce are:

- **Business to Business (B2B):** Both the transacting parties are businesses.
- **Business to Consumer (B2C):** Businesses sell electronically to end-consumers.
- **Consumer to Consumer (C2C):** Consumers come together to buy, sell or trade items to other consumers.
- **Consumer-to-Business (C2B):** Consumers make products or services available for purchase to companies looking for exactly those services or products.
- **Business-to-Administration (B2A):** Online transactions conducted between companies and public administration.
- **Consumer-to-Administration (C2A):** Online transactions conducted between individual and public administration.

### 8.2.3.1 Benefits of E-Commerce

The e-commerce business provides some benefits for retailers and customers.

#### Benefits for retailers

- Establishes an online presence
- Reduces operational costs by removing overhead costs
- Increases brand awareness through the use of good keywords
- Increases sales by removing geographical and time constraints

#### Benefits for customers

- Offers a wider range of choice than any physical store
- Enables goods and services to be purchased from remote locations
- Enables consumers to perform price comparisons

### 8.2.3.2 Digital India Campaign

Prime Minister Narendra Modi launched the Digital India campaign in 2015, with the objective of offering every citizen of India access to digital services, knowledge and information. The campaign aims to improve the country's online infrastructure and increase internet connectivity, thus boosting the e-commerce industry.

Currently, the majority of online transactions come from tier 2 and tier 3 cities. Once the Digital India campaign is in place, the government will deliver services through mobile connectivity, which will help deliver internet to remote corners of the country. This will help the e-commerce market to enter India's tier 4 towns and rural areas.

#### E-Commerce Activity

Choose a product or service that you want to sell online. Write a brief note explaining how you will use existing e-commerce platforms, or create a new e-commerce platform, to sell your product or service.

#### Tips

- Before launching your e-commerce platform, test everything.
- Pay close and personal attention to your social media.

## UNIT 8.3: Money Matters

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Discuss the importance of saving money
2. Discuss the benefits of saving money
3. Discuss the main types of bank accounts
4. Describe the process of opening a bank account
5. Differentiate between fixed and variable costs
6. Describe the main types of investment options
7. Describe the different types of insurance products
8. Describe the different types of taxes
9. Discuss the uses of online banking
10. Discuss the main types of electronic funds transfers

### 8.3.1 Personal Finance – Why to Save?

#### Importance of Saving

We all know that the future is unpredictable. You never know what will happen tomorrow, next week or next year. That's why saving money steadily through the years is so important. Saving money will help improve your financial situation over time. But more importantly, knowing that you have money stashed away for an emergency will give you peace of mind. Saving money also opens the door to many more options and possibilities.

#### Benefits of Saving

Inculcating the habit of saving leads to a vast number of benefits. Saving helps you:

- **Become financially independent:** When you have enough money saved up to feel secure you can start making your choices, from taking a vacation whenever you want, to switching careers or starting your own business.
- **Invest in yourself through education:** Through saving, you can earn enough to pay up for courses that will add to your professional experience and ultimately result in higher paying jobs.
- **Get out of debt:** Once you have saved enough as a reserve fund, you can use your savings to pay off debts like loans or bills that have accumulated over time.
- **Be prepared for surprise expenses:** Having money saved enables you to pay for unforeseen expenses like sudden car or house repairs, without feeling financially stressed.
- **Pay for emergencies:** Saving helps you deal with emergencies like sudden health issues or emergency trips without feeling financially burdened.

- **Afford large purchases and achieve major goals:** Saving diligently makes it possible to place down payments towards major purchases and goals, like buying a home or a car.
- **Retire:** The money you have saved over the years will keep you comfortable when you no longer have the income you would get from your job.

### Tips



- Break your spending habit. Try not spending on one expensive item per week, and put the money that you would have spent into your savings.
- Decide that you will not buy anything on certain days or weeks and stick to your word.

## 8.3.2 Types of Bank Accounts

In India, banks offer four main types of bank accounts. These are:

1. Current Accounts
2. Savings Accounts
3. Recurring Deposit Accounts
4. Fixed Deposit Accounts

### Current Accounts

Current accounts offer the most liquid deposits and thus, are best suited for businessmen and companies. As these accounts are not meant for investments and savings, there is no imposed limit on the number or amount of transactions that can be made on any given day. Current account holders are not paid any interest on the amounts held in their accounts. They are charged for certain services offered on such accounts.

### Saving Accounts

Savings accounts are meant to promote savings, and are therefore the number one choice for salaried individuals, pensioners and students. While there is no restriction on the number and amount of deposits made, there are usually restrictions on the number and amount of withdrawals. Savings account holders are paid interest on their savings.

### Recurring Deposit Accounts

Recurring Deposit accounts, also called RD accounts, are the accounts of choice for those who want to save an amount every month, but are unable to invest a large sum at one time. Such account holders deposit a small, fixed amount every month for a pre-determined period (minimum 6 months). Defaulting on a monthly payment results in the account holder being charged a penalty amount. The total amount is repaid with interest at the end of the specified period.

## Fixed Deposit Accounts

Fixed Deposit accounts, also called FD accounts, are ideal for those who wish to deposit their savings for a long term in return for a high rate of interest. The rate of interest offered depends on the amount deposited and the time period, and also differs from bank to bank. In the case of an FD, a certain amount of money is deposited by the account holder for a fixed period of time. The money can be withdrawn when the period expires. If necessary, the depositor can break the fixed deposit prematurely. However, this usually attracts a penalty amount which also differs from bank to bank.

### 8.3.2.1 Opening a Bank Account

Opening a bank account is quite a simple process. Take a look at the steps to open an account of your own:

#### Step 1: Fill in the Account Opening Form

This form requires you to provide the following information:

- Personal details (name, address, phone number, date of birth, gender, occupation, address)
- Method of receiving your account statement (hard copy/email)
- Details of your initial deposit (cash/cheque)
- Manner of operating your account (online/mobile banking/traditional via cheque, slip books)
- Ensure that you sign wherever required on the form.

#### Step 2: Affix your Photograph

Stick a recent photograph of yourself in the allotted space on the form.

#### Step 3: Provide your Know Your Customer (KYC) Details

KYC is a process that helps banks verify the identity and address of their customers. To open an account, every individual need to submit certain approved documents with respect to photo identity (ID) and address proof. Some Officially Valid Documents (OVDs) are:

- Passport
- Driving License
- Voters' Identity Card
- PAN Card
- UIDAI (Aadhar) Card

#### Step 4: Submit All your Documents

Submit the completed Account Opening Form and KYC documents. Then wait until the forms are processed and your account has been opened!

## Tips



- Select the right type of account.
- Fill in complete nomination details.
- Ask about fees.
- Understand the rules.
- Check for online banking – it's convenient!
- Keep an eye on your bank balance.

### 8.3.3 Costs: Fixed vs Variable

#### What are Fixed and Variable Costs?

Fixed costs and variable costs together make up a company's total cost. These are the two types of costs that companies have to bear when producing goods and services. A fixed cost does not change with the volume of goods or services a company produces. It always remains the same.

A variable cost, on the other hand, increases and decreases depending on the volume of goods and services produced. In other words, it varies with the amount produced.

#### Differences between Fixed and Variable Costs

Let's take a look at some of the main differences between fixed and variable costs:

Criteria	Fixed Costs	Variable Costs
<b>Meaning</b>	A cost that stays the same, regardless of the output produced.	A cost that changes when the
<b>Nature</b>	Time related.	Volume related.
<b>Incurred</b>	Incurred irrespective of units being produced.	Incurred only when units are produced
<b>Unit cost</b>	Inversely proportional to the number of units produced	Remains the same, per unit.
<b>Examples</b>	Depreciation, rent, salary, insurance and tax	Material consumed, wages, commission on sales and packing expenses

Fig.8.3.1: Fixed and variable costs

**Tips**

- When trying to determine whether a cost is fixed or variable, simply ask the following question: Will the particular cost change if the company stopped its production activities? If the answer is no, then it is a fixed cost. If the answer is yes, then it is probably a variable cost.

### 8.3.4 Investment, Insurance and Taxes

#### Investment

Investment means that money is spent today with the aim of reaping financial gains at a future time. The main types of investment options are as follows:

- **Bonds:** Bonds are instruments used by public and private companies to raise large sums of money – too large to be borrowed from a bank. These bonds are then issued in the public market and are bought by lenders.
- **Stocks:** Stocks or equity are shares that are issued by companies and are bought by the general public.
- **Small Savings Schemes:** Small Savings Schemes are tools meant to save money in small amounts. Some popular schemes are the Employees Provident Fund, Sukanya Samridhi Scheme and National Pension Scheme.
- **Mutual Funds:** Mutual Funds are professionally managed financial instruments that invest money in different securities on behalf of investors.
- **Fixed Deposits:** A fixed amount of money is kept aside with a financial institution for a fixed amount of time in return for interest on the money.
- **Real Estate:** Loans are taken from banks to purchase real estate, which is then leased or sold with the aim of making a profit on the appreciated property price.
- **Hedge Funds:** Hedge funds invest in both financial derivatives and/or publicly traded securities.
- **Private Equity:** Private Equity is trading in the shares of an operating company that is not publicly listed and whose shares are not available on the stock market.
- **Venture Capital:** Venture Capital involves investing substantial capital in a budding company in return for stocks in that company.

#### Insurance

There are two types of insurance, Life Insurance and General Insurance.

##### Life Insurance Products

The main life insurance products are:

- **Term Insurance:** This is the simplest and cheapest form of insurance. It offers financial protection for a specified tenure, say 15 to 20 years. In the case of your death, your family is paid the sum assured. In the case of your surviving the term, the insurer pays nothing.

- **Endowment Policy:** This offers the dual benefit of insurance and investment. Part of the premium is allocated towards the sum assured, while the remaining premium gets invested in equity and debt. It pays a lump sum amount after the specified duration or on the death of the policyholder, whichever is earlier.
- **Unit-Linked Insurance Plan (ULIP):** Here part of the premium is spent on the life cover, while the remaining amount is invested in equity and debt. It helps develop a regular saving habit.
- **Money Back Life Insurance:** While the policyholder is alive, periodic payments of the partial survival benefits are made during the policy tenure. On the death of the insured, the insurance company pays the full sum assured along with survival benefits.
- **Whole Life Insurance:** It offers the dual benefit of insurance and investment. It offers insurance cover for the whole life of the person or up to 100 years whichever is earlier.

### General Insurance

General Insurance deals with all insurance covering assets like animals, agricultural crops, goods, factories, cars and so on.

### General Insurance Products

The main general insurance products are:

- **Motor Insurance:** This can be divided into Four-Wheeler Insurance and Two-Wheeler insurance.
- **Health Insurance:** The main types of health insurance are individual health insurance, family floater health insurance, comprehensive health insurance and critical illness insurance.
- **Travel Insurance:** This can be categorised into Individual Travel Policy, Family Travel Policy, Student Travel Insurance and Senior Citizen Health Insurance.
- **Home Insurance:** This protects the house and its contents from risk.
- **Marine Insurance:** This insurance covers goods, freight and cargo against loss or damage during transit by rail, road, sea and/or air.

### Taxes

There are two types of taxes:

1. Direct Taxes
2. Indirect Taxes.

#### Direct Tax

Direct taxes are levied directly on an entity or a person and are non-transferrable. Some examples of Direct Taxes are:

- **Income Tax:** This tax is levied on your earning in a financial year. It is applicable to both, individuals and companies.
- **Capital Gains Tax:** This tax is payable whenever you receive a sizable amount of money. It is usually of two types – short term capital gains from investments held for less than 36 months and long term capital gains from investments held for longer than 36 months.

- **Securities Transaction Tax:** This tax is added to the price of a share. It is levied every time you buy or sell shares.
- **Perquisite Tax:** This tax is levied on perks that have been acquired by a company or used by an employee.
- **Corporate Tax:** Corporate tax is paid by companies from the revenue they earn.

#### Indirect Tax

Indirect taxes are levied on goods or services. Some examples of Indirect Taxes are:

- **Sales Tax:** Sales Tax is levied on the sale of a product.
- **Service Tax:** Service Tax is added to services provided in India.
- **Value Added Tax:** Value Added Tax is levied at the discretion of the state government. The tax is levied on goods sold in the state. The tax amount is decided by the state.
- **Customs Duty & Octroi:** Customs Duty is a charge that is applied on purchases that are imported from another country. Octroi is levied on goods that cross state borders within India.
- **Excise Duty:** Excise Duty is levied on all goods manufactured or produced in India

#### Tips



- Think about how quickly you need your money back and pick an investment option accordingly.
- Ensure that you are buying the right type of insurance policy for yourself.
- Remember, not paying taxes can result in penalties ranging from fines to imprisonment.

### 8.3.5 Online Banking, NEFT, RTGS etc.

#### What is Online Banking?

Internet or online banking allows account holders to access their account from a laptop at any location. In this way, instructions can be issued. To access an account, account holders simply need to use their unique customer ID number and password.

Internet banking can be used to:

- Find out an account balance
- Transfer amounts from one account to another
- Arrange for the issuance of cheques
- Instruct payments to be made
- Request for a cheque book
- Request for a statement of accounts
- Make a fixed deposit

## Electronic Funds Transfers

Electronic funds transfer is a convenient way of transferring money from the comfort of one's own home, using integrated banking tools like internet and mobile banking.

Transferring funds via an electronic gateway is extremely convenient. With the help of online banking, you can choose transferring funds:

- Into your accounts of the same bank.
- Into other people's accounts of the same bank.
- Into accounts in different banks through NEFT.
- Into other bank accounts through RTGS.
- Into various accounts through IMPS.

### NEFT

NEFT stands for National Electronic Funds Transfer. This money transfer system allows you to electronically transfer funds from your respective bank accounts to any other account, either in the same bank or belonging to any other bank. NEFT can be used by individuals, firms and corporate organizations to transfer funds between accounts.

In order to transfer funds via NEFT, two things are required:

- A transferring bank
- A destination bank

Before you can transfer funds through NEFT, you will need to register the beneficiary who will be receiving the funds. In order to complete this registration, you will require the following information:

- Recipient's name
- Recipient's account number
- Recipient's bank's name
- Recipient's bank's IFSC code

### RTGS

RTGS stands for Real Time Gross Settlement. This is a real time funds transfer system which enables you to transfer funds from one bank to another, in real time or on a gross basis. The transferred amount is immediately deducted from the account of one bank, and instantly credited to the other bank's account. The RTGS payment gateway is maintained by the Reserve Bank of India. The transactions between banks are made electronically.

RTGS can be used by individuals, companies and firms to transfer large sums of money. Before remitting funds through RTGS, you will need to add the beneficiary and his bank account details via your online banking account.

In order to complete this registration, you will require the following information:

- Name of the beneficiary
- Beneficiary's account number
- Beneficiary's bank address
- Bank's IFSC code

## **IMPS**

IMPS stands for Immediate Payment Service. This is a real-time, inter-bank, electronic funds transfer system used to transfer money instantly within banks across India. IMPS enables users to make instant electronic transfer payments using mobile phones through both, Mobile Banking and SMS. It can also be used through ATMs and online banking. IMPS is available 24 hours a day and 7 days a week. The system features a secure transfer gateway and immediately confirms orders that have been fulfilled.

To transfer money through IMPS, you need to:

- Register for IMPS with your bank
- Receive a Mobile Money Identifier (MMID) from the bank
- Receive a MPIN from the bank

Once you have both these, you can login or make a request through SMS to transfer a particular amount to a beneficiary.

In order for the beneficiary to receive the transferred money, he must:

- Link his mobile number with his respective account
- Receive the MMID from the bank

In order to initiate a money transfer through IMPS, you will need to enter the following information:

- The beneficiary's mobile number
- The beneficiary's MMID
- The transfer amount
- Your MPIN

As soon as money has been deducted from your account and credited into the beneficiary's account, you will be sent a confirmation SMS with a transaction reference number, for future reference.

### 8.3.5.1 Differences between NEFT, RTGS & IMPS

Criteria	NEFT	RTGS	IMPS
Settlement	Done in batches	Real-time	Real-time
Full form	National Electronic Fund Transfer	Real Time Gross Settlement	Immediate Payment Service
Timings on Monday – Friday	8:00 am – 6:30 pm	9:00 am – 4:30 pm	24x7
Timings on Saturday	8:00 am – 1:00 pm	9:00 am – 1:30 pm	24x7
Minimum amount of money transfer limit	₹1	₹2 lacs	₹1
Maximum amount of money transfer limit	₹10 lacs	₹10 lacs per day	₹2 lacs
Maximum charges as per RBI	Up to 10,000 – ₹2.5 above 10,000 – 1 lac - ₹5 above 1 – 2 lacs ₹15 above 2 – 5 lacs ₹25 above 5 – 10 lacs ₹25	above 2 – 5 lacs ₹25 above 5 – 10 lacs ₹50	Up to 10,000 – ₹5 above 10,000 – 1 lac – ₹5 above 1 – 2 lacs – ₹15

Fig.8.3.2: Differences Between NEFT, RTGS & IMPS

#### Tips

- Never click on any links in any e-mail message to access your online banking website.
- You will never be asked for your credit or debit card details while using online banking.
- Change your online banking password regularly.

## UNIT 8.4: Preparing for Employment & Self-Employment

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Discuss the steps to prepare for an interview
2. Discuss the steps to create an effective Resume
3. Discuss the most frequently asked interview questions
4. Discuss how to answer the most frequently asked interview questions
5. Discuss basic workplace terminology

### 8.4.1 Interview Preparation: How to Prepare for an Interview?

The success of your getting the job that you want depends largely on how well your interview for that job goes. Therefore, before you go in for your interview, it is important that you prepare for it with a fair amount of research and planning. Take a look at the steps to follow in order to be well prepared for an interview:

1. **Research the organization that you are having the interview with.**
  - Studying the company beforehand will help you be more prepared at the time of the interview. Your knowledge of the organization will help you answer questions at the time of the interview, and will leave you looking and feeling more confident. This is sure to make you stand out from other, not as well informed, candidates.
  - Look for background information on the company. Try and find an overview of the company and its industry profile.
  - Visit the company website to get a good idea of what the company does. A company website offers a wealth of important information. Read and understand the company's mission statement. Pay attention to the company's products/services and client list. Read through any press releases to get an idea of the company's projected growth and stability.
  - Note down any questions that you have after your research has been completed.
2. **Think about whether your skills and qualifications match the job requirements.**
  - Carefully read through and analyse the job description.
  - Make a note of the knowledge, skills and abilities required to fulfil the job requirements.
  - Take a look at the organization hierarchy. Figure out where the position you are applying for fits into this hierarchy.

**3. Go through the most typical interview questions asked, and prepare your responses.**

- Remember, in most interviews a mix of resume-based, behavioural and case study questions are asked.
- Think about the kind of answers you would like to provide to typical questions asked in these three areas.
- Practice these answers until you can express them confidently and clearly.

**4. Plan your attire for the interview.**

- It is always safest to opt for formal business attire, unless expressly informed to dress in business casual (in which case you should use your best judgement).
- Ensure that your clothes are clean and well-ironed. Pick neutral colours – nothing too bright or flashy.
- The shoes you wear should match your clothes, and should be clean and suitable for an interview.
- Remember, your aim is to leave everyone you meet with the impression that you are a professional and highly efficient person.

**5. Ensure that you have packed everything that you may require during the interview.**

- Carry a few copies of your resume. Use a good quality paper for your resume print outs.
- Always take along a notepad and a pen.
- Take along any information you may need to refer to, in order to fill out an application form.
- Carry a few samples of your work, if relevant.

**6. Remember the importance of non-verbal communication.**

- Practice projecting confidence. Remind yourself to smile and make eye contact. Practice giving a firm handshake.
- Keep in mind the importance of posture. Practice sitting up straight. Train yourself to stop nervous gestures like fidgeting and foot-tapping.
- Practice keeping your reactions in check. Remember, your facial expressions provide a good insight into your true feelings. Practice projecting a positive image.

**7. Make a list of questions to end the interview with.**

- Most interviews will end with the interviewer(s) asking if you have any questions. This is your chance to show that you have done your research and are interested in learning more about the company.
- If the interviewer does not ask you this question, you can inform him/her that you have some queries that you would like to discuss. This is the time for you to refer to the notes you made while studying the company.
- Some good questions to ask at this point are:
  - What do you consider the most important criteria for success in this job?
  - How will my performance be evaluated?
  - What are the opportunities for advancement?
  - What are the next steps in the hiring process?
- Remember, never ask for information that is easily available on the company website.

**Tips**

- Ask insightful and probing questions.
- When communicating, use effective forms of body language like smiling, making eye contact, and actively listening and nodding. Don't slouch, play with nearby items, fidget, chew gum, or mumble.

## 8.4.2 Preparing an Effective Resume

A resume is a formal document that lists a candidate's work experience, education and skills. A good resume gives a potential employer enough information to believe the applicant is worth interviewing. That's why it is so important to create a résumé that is effective. Take a look at the steps to create an effective resume:

### Step 1: Write the Address Section

The Address section occupies the top of your resume. It includes information like your name, address, phone number and e-mail address. Insert a bold line under the section to separate it from rest of your resume.

#### Example:

Jasmine Watts  
 Breach Candy, Mumbai – India  
 Contact No: +91 2223678270  
 Email: jasmine.watts@gmail.com

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### Step 2: Add the Profile Summary Section

This part of your resume should list your overall experiences, achievements, awards, certifications and strengths. You can make your summary as short as 2-3 bullet points or as long as 8-10 bullet points.

#### Example:

##### Profile Summary

- A Content Writer graduated from University of Strathclyde having 6 years of experience in writing website copy.
- Core expertise lies in content creation for e-learning courses, specifically for the K-12 segment.

### Step 3: Include Your Educational Qualifications

When listing your academic records, first list your highest degree. Then add the second highest qualification under the highest one and so on. To provide a clear and accurate picture of your educational background, it is critical that include information on your position, rank, percentage or CPI for every degree or certification that you have listed.

If you have done any certifications and trainings, you can add a Trainings & Certifications section under your Educational Qualifications section.

**Example:**

**Educational Qualifications**

- Masters in International Management (2007) from Columbia University with 8.8 CPI.
- Bachelor of Management Studies (2004) from Mumbai University with 87% marks.
- 10+2 with Math, Stats (2001) from Maharashtra Board with 91% marks.
- High School (1999) from Maharashtra Board with 93% marks.

**Step 4: List Your Technical Skills**

When listing your technical skills, start with the skills that you are most confident about. Then add the skills that you do not have as good a command over. It is perfectly acceptable to include just one skill, if you feel that particular skill adds tremendous value to your résumé. If you do not have any technical skills, you can omit this step.

**Example:**

**Technical Skills**

- Flash
- Photoshop

**Step 5: Insert Your Academic Project Experience**

List down all the important projects that you have worked on. Include the following information in this section:

- |                 |                |                 |
|-----------------|----------------|-----------------|
| • Project title | • Organization | • Platform used |
| • Contribution  | • Description  |                 |

**Example:**

**Academic Projects**

**Project Title:** Different Communication Skills

**Organization:** True Blue Solutions

**Platform used:** Articulate

**Contribution:** Content writing and graphic visualization

**Description:** Development of storyboards for corporate induction & training programs

**Step 6: List Your Strengths**

This is where you list all your major strengths. This section should be in the form of a bulleted list.

**Example:****Strengths**

- Excellent oral, written and presentation skills
- Action-oriented and result-focused
- Great time management skills

**Step 7: List Your Extracurricular Activities**

It is very important to show that you have diverse interests and that your life consists of more than academics. Including your extracurricular activities can give you an added edge over other candidates who have similar academic scores and project experiences. This section should be in the form of a bulleted list.

**Example:****Extracurricular Activities**

- Member of the Debate Club
- Played tennis at a national level
- Won first prize in the All India Camel Contest, 2010

**Step 8: Write Your Personal Details**

The last section of your résumé must include the following personal information:

- Date of birth
- Gender & marital status
- Nationality
- Languages known

**Example:****Personal Details**

- Date of birth: 25<sup>th</sup> May, 1981
- Gender & marital status: Female, Single
- Nationality: Indian
- Languages known: English, Hindi, Tamil, French

**Tips** 

- Keep your resume file name short, simple and informational.
- Make sure the resume is neat and free from typing errors.
- Always create your resume on plain white paper.

### 8.4.3 Interview FAQs

Take a look at some of the most frequently asked interview questions, and some helpful tips on how to answer them.

#### **Q1. Can you tell me a little about yourself?**

Tips to answer:

- Don't provide your full employment or personal history.
- Offer 2-3 specific experiences that you feel are most valuable and relevant.
- Conclude with how those experiences have made you perfect for this specific role.

#### **Q2. How did you hear about the position?**

Tips to answer:

- Tell the interviewer how you heard about the job – whether it was through a friend (name the friend), event or article (name them) or a job portal (say which one).
- Explain what excites you about the position and what in particular caught your eye about this role.

#### **Q3. What do you know about the company?**

Tips to answer:

- Don't recite the company's About Us page.
- Show that you understand and care about the company's goals.
- Explain why you believe in the company's mission and values.

#### **Q4. Why do you want this job?**

Tips to answer:

- Show that you are passionate about the job.
- Identify why the role is a great fit for you.
- Explain why you love the company.

#### **Q5. Why should we hire you?**

Tips to answer:

- Prove through your words that you can not only do the work, but can definitely deliver excellent results.
- Explain why you would be a great fit with the team and work culture.
- Explain why you should be chosen over any other candidate.

#### **Q6. What are your greatest professional strengths?**

Tips to answer:

- Be honest – share some of your real strengths, rather than give answers that you think sound good.
- Offer examples of specific strengths that are relevant to the position you are applying for.
- Provide examples of how you've demonstrated these strengths.

**Q7. What do you consider to be your weaknesses?****Tips to answer:**

- The purpose of this question is to gauge your self-awareness and honesty.
- Give an example of a trait that you struggle with, but that you're working on to improve.

**Q8. What are your salary requirements?****Tips to answer:**

- Do your research beforehand and find out the typical salary range for the job you are applying for.
- Figure out where you lie on the pay scale based on your experience, education, and skills.
- Be flexible. Tell the interviewer that you know your skills are valuable, but that you want the job and are willing to negotiate.

**Q9. What do you like to do outside of work?****Tips to answer:**

- The purpose of this question is to see if you will fit in with the company culture.
- Be honest – open up and share activities and hobbies that interest and excite you.

**Q10. If you were an animal, which one would you want to be?****Tips to answer:**

- The purpose of this question is to see if you are able to think on your feet.
- There's no wrong answer – but to make a great impression try to bring out your strengths or personality traits through your answer.

**Q11: What do you think we could do better or differently?****Tips to answer:**

- The purpose of this question is to see if you have done your research on the company, and to test whether you can think critically and come up with new ideas.
- Suggest new ideas. Show how your interests and expertise would help you execute these ideas.

**Q12: Do you have any questions for us?****Tips to answer:**

- Do not ask questions to which the answers can be easily found on the company website or through a quick online search.
- Ask intelligent questions that show your ability to think critically.

**Tips** 

- Be honest and confident while answering.
- Use examples of your past experiences wherever possible to make your answers more impactful.

### 8.4.4 Work Readiness – Terms & Terminologies

Every employee should be well versed in the following terms:

- **Annual leave:** Paid vacation leave given by employers to employees.
- **Background Check:** A method used by employers to verify the accuracy of the information provided by potential candidates.
- **Benefits:** A part of an employee's compensation package.
- **Breaks:** Short periods of rest taken by employees during working hours.
- **Compensation Package:** The combination of salary and benefits that an employer provides to his/her employees.
- **Compensatory Time (Comp Time):** Time off in lieu of pay.
- **Contract Employee:** An employee who works for one organization that sells said employee's service to another company, either on a project or time basis.
- **Contract of Employment:** When an employee is offered work in exchange for wages or salary, and accepts the offer made by the employer, a contract of employment exists.
- **Corporate Culture:** The beliefs and values shared by all the members of a company, and imparted from one generation of employees to another.
- **Counter Offer/Counter Proposal:** A negotiation technique used by potential candidates to increase the amount of salary offered by a company.
- **Cover Letter:** A letter that accompanies a candidate's resume. It emphasizes the important points in the candidate's resume and provides real examples that prove the candidate's ability to perform the expected job role.
- **Curriculum Vitae (CV)/Resume:** A summary of a candidate's achievements, educational work experience, skills and strengths.
- **Declining Letter:** A letter sent by an employee to an employer, turning down the job offer employer to the employee.
- **Deductions:** Amounts subtracted from an employee's pay and listed on the employee's pay slip.
- **Discrimination:** The act of treating one person not as favourably as another person.
- **Employee:** A person who works for another person in exchange for payment.
- **Employee Training:** A workshop or in-house training that an employee is asked to attend by his or her superior, for the benefit of the employer.
- **Employment Gaps:** Periods of unemployed time between jobs.
- **Fixed-Term Contract:** A contract of employment which gets terminated on an agreed-upon date.
- **Follow-Up:** The act of contacting a potential employer after a candidate has submitted his or her resume.
- **Freelancer/Consultant/Independent Contractor:** A person who works for him or herself for temporary jobs and projects with different employers.
- **Holiday:** Paid time-off from work.
- **Hourly Rate:** The amount of salary or wages paid for 60 minutes of work.

- **Internship:** A job opportunity offered by an employer to a potential employee, called an at the employer's company for a fixed, limited time period.
- **Interview:** A conversation between a potential employee and a representative of an order to determine if the potential employee should be hired.
- **Job Application:** A form which asks for a candidate's information like the candidate's name, details and work experience. The purpose of a candidate submitting a job application, is to show that candidate's interest in working for a particular company.
- **Job Offer:** An offer of employment made by an employer to a potential employee.
- **Job Search Agent:** A program that enables candidates to search for employment opportunities by selecting criteria listed in the program, for job vacancies. background, made by the and pitches intern, to work employer, in address, contact
- **Lay Off:** A lay off occurs when an employee is temporarily let go from his or her job, due to the employer not having any work for that employee.
- **Leave:** Formal permission given to an employee, by his or her employer, to take a leave of absence from work.
- **Letter of Acceptance:** A letter given by an employer to an employee, confirming the offer of employment made by the employer, as well as the conditions of the offer.
- **Letter of Agreement:** A letter that outlines the terms of employment.
- **Letter of Recommendation:** A letter written for the purpose of validating the work skills of a person.
- **Maternity Leave:** Leave taken from work by women who are pregnant, or who have just given birth.
- **Mentor:** A person who is employed at a higher level than you, who offers you advice and guides you in your career.
- **Minimum wage:** The minimum wage amount paid on an hourly basis.
- **Notice:** An announcement made by an employee or an employer, stating that the employment contract will end on a particular date.
- **Offer of Employment:** An offer made by an employer to a prospective employee that contains important information pertaining to the job being offered, like the starting date, salary, working conditions etc.
- **Open-Ended Contract:** A contract of employment that continues till the employer or terminates it.
- **Overqualified:** A person who is not suited for a particular job because he or she has too many years of work experience, or a level of education that is much higher than required for the job, or is currently or was previously too highly paid.
- **Part-Time Worker:** An employee who works for fewer hours than the standard number of hours normally worked.
- **Paternity Leave:** Leave granted to a man who has recently become a father.
- **Recruiters/Head-hunters/Executive Search Firms:** Professionals who are paid by employers to search for people to fill particular positions.
- **Resigning/Resignations:** When an employee formally informs his or her employer that he or she is quitting his or her job.

- **Self-Employed:** A person who has his or her own business and does not work in the capacity of an employee.
- **Time Sheet:** A form that is submitted to an employer, by an employee, that contains the number of hours worked every day by the employee.

## UNIT 8.5: Understanding Entrepreneurship

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Discuss the concept of entrepreneurship
2. Discuss the importance of entrepreneurship
3. Describe the characteristics of an entrepreneur
4. Describe the different types of enterprises
5. List the qualities of an effective leader
6. Discuss the benefits of effective leadership
7. List the traits of an effective team
8. Discuss the importance of listening effectively
9. Discuss how to listen effectively
10. Discuss the importance of speaking effectively
11. Discuss how to speak effectively
12. Discuss how to solve problems
13. List important problem solving traits
14. Discuss ways to assess problem solving skills
15. Discuss the importance of negotiation
16. Discuss how to negotiate
17. Discuss how to identify new business opportunities
18. Discuss how to identify business opportunities within your business
19. Understand the meaning of entrepreneur
20. Describe the different types of entrepreneurs
21. List the characteristics of entrepreneurs
22. Recall entrepreneur success stories
23. Discuss the entrepreneurial process
24. Describe the entrepreneurship ecosystem
25. Discuss the government's role in the entrepreneurship ecosystem
26. Discuss the current entrepreneurship ecosystem in India
27. Understand the purpose of the Make in India campaign
28. Discuss the relationship between entrepreneurship and risk appetite
29. Discuss the relationship between entrepreneurship and resilience
30. Describe the characteristics of a resilient entrepreneur
31. Discuss how to deal with failure

## 8.5.1 Concept Introduction

Anyone who is determined to start a business, no matter what the risk, is an entrepreneur. Entrepreneurs run their own start-up, take responsibility for the financial risks and use creativity, innovation and vast reserves of self-motivation to achieve success. They dream big and are determined to do whatever it takes to turn their idea into a viable offering. The aim of an entrepreneur is to create an enterprise. The process of creating this enterprise is known as entrepreneurship.

### 8.5.1.1 Importance of Entrepreneurship

Entrepreneurship is very important for the following reasons:

1. It results in the creation of new organizations
2. It brings creativity into the marketplace
3. It leads to improved standards of living
4. It helps develop the economy of a country

### 8.5.1.2 Characteristics of Entrepreneurs

All successful entrepreneurs have certain characteristics in common.

They are all:

- Extremely passionate about their work
- Confident in themselves
- Disciplined and dedicated
- Motivated and driven
- Highly creative
- Visionaries
- Open-minded
- Decisive

Entrepreneurs also have a tendency to:

- Have a high-risk tolerance
- Thoroughly plan everything
- Manage their money wisely
- Make their customers their priority
- Understand their offering and their market in detail
- Ask for advice from experts when required
- Know when to cut their losses

### 8.5.1.3 Examples of Famous Entrepreneurs

Some famous entrepreneurs are:

- Bill Gates (Founder of Microsoft)
- Steve Jobs (Co-founder of Apple)
- Mark Zuckerberg (Founder of Facebook)
- Pierre Omidyar (Founder of eBay)

### 8.5.1.4 Types of Enterprises

As an entrepreneur in India, you can own and run any of the following types of enterprises:

#### **Sole Proprietorship**

In a sole proprietorship, a single individual owns, manages and controls the enterprise. This type of business is the easiest to form with respect to legal formalities. The business and the owner have no separate legal existence. All profit belongs to the proprietor, as do all the losses the liability of the entrepreneur is unlimited.

#### **Partnership**

A partnership firm is formed by two or more people. The owners of the enterprise are called partners. A partnership deed must be signed by all the partners. The firm and its partners have no separate legal existence. The profits are shared by the partners. With respect to losses, the liability of the partners is unlimited. A firm has a limited life span and must be dissolved when any one of the partners dies, retires, claims bankruptcy or goes insane.

#### **Limited Liability Partnership (LLP)**

In a Limited Liability Partnership or LLP, the partners of the firm enjoy perpetual existence as well as the advantage of limited liability. Each partner's liability is limited to their agreed contribution to the LLP. The partnership and its partners have a separate legal existence.

#### **Tips**

- Learn from others' failures.
- Be certain that this is what you want.
- Search for a problem to solve, rather than look for a problem to attach to your idea.

### 8.5.2 Leadership & Teamwork: Leadership and Leaders

Leadership means setting an example for others to follow. Setting a good example means not asking someone to do something that you wouldn't willingly want to do yourself. Leadership is about figuring out what to do in order to win as a team, and as a company.

Leaders believe in doing the right things. They also believe in helping others to do the right things. An effective leader is someone who:

- Creates an inspiring vision of the future.
- Motivates and inspires his team to pursue that vision.

### 8.5.2.1 Leadership Qualities That All Entrepreneurs Need

Building a successful enterprise is only possible if the entrepreneur in charge possesses excellent leadership qualities. Some critical leadership skills that every entrepreneur must have are:

1. **Pragmatism:** This means having the ability to highlight all obstacles and challenges, in order to resolve issues and reduce risks.
2. **Humility:** This means admitting to mistakes often and early, and being quick to take responsibility for your actions. Mistakes should be viewed as challenges to overcome, not opportunities to point blame.
3. **Flexibility:** It is critical for a good leader to be very flexible and quickly adapt to change. It is equally critical to know when to adapt and when not to.
4. **Authenticity:** This means showing both, your strengths and your weaknesses. It means being human and showing others that you are human.
5. **Reinvention:** This means refreshing or changing your leadership style when necessary. To do this, it's important to learn where your leadership gaps lie and find out what resources are required to close them.
6. **Awareness:** This means taking the time to recognize how others view you. It means understanding how your presence affects those around you.

### 8.5.2.2 Benefits of Effective Leadership

Effective leadership results in numerous benefits. Great leadership leads to the leader successfully:

- Gaining the loyalty and commitment of the team members
- Motivating the team to work towards achieving the company's goals and objectives
- Building morale and instilling confidence in the team members
- Fostering mutual understanding and team-spirit among team members
- Convincing team members about the need to change when a situation requires adaptability

### 8.5.2.3 Teamwork and Teams

Teamwork occurs when the people in a workplace combine their individual skills to pursue a common goal. Effective teams are made up of individuals who work together to achieve this common goal. A great team is one who holds themselves accountable for the end result.

### 8.5.2.4 Importance of Teamwork in Entrepreneurial Success

For an entrepreneurial leader, building an effective team is critical to the success of a venture. An entrepreneur must ensure that the team he builds possesses certain crucial qualities, traits and characteristics. An effective team is one which has:

1. **Unity of purpose:** All the team members should clearly understand and be equally committed to the purpose, vision and goals of the team.
2. **Great communication skills:** Team members should have the ability to express their concerns, ask questions and use diagrams, and charts to convey complex information.
3. **The ability to collaborate:** Every member should feel entitled to provide regular feedback on new ideas.
4. **Initiative:** The team should consist of proactive individuals. The members should have the enthusiasm to come up with new ideas, improve existing ideas, and conduct their own research.
5. **Visionary members:** The team should have the ability to anticipate problems and act on these potential problems before they turn into real problems.
6. **Great adaptability skills:** The team must believe that change is a positive force. Change should be seen as the chance to improve and try new things.
7. **Excellent organizational skills:** The team should have the ability to develop standard work processes, balance responsibilities, properly plan projects, and set in place methods to measure progress and ROI.

#### Tips

- Don't get too attached to your original idea. Allow it to evolve and change.
- Be aware of your weaknesses and build a team that will complement your shortfalls.
- Hiring the right people is not enough. You need to promote or incentivize your most talented people to keep them motivated.
- Earn your team's respect.

### 8.5.3 Communication Skills

Listening is the ability to correctly receive and understand messages during the process of communication. Listening is critical for effective communication. Without effective listening skills, messages can easily be misunderstood. This results in a communication breakdown and can lead to the sender and the receiver of the message becoming frustrated or irritated.

It's very important to note that listening is not the same as hearing. Hearing just refers to sounds that you hear. Listening is a whole lot more than that. To listen, one requires focus. It means not only paying attention to the story, but also focusing on how the story is relayed, the way language and voice is used, and even how the speaker uses their body language. The ability to listen depends on how effectively one can perceive and understand both, verbal and non-verbal cues.

### 8.5.3.1 How to Listen Effectively?

To listen effectively you should:

- Stop talking
- Stop interrupting
- Focus completely on what is being said
- Nod and use encouraging words and gestures
- Be open-minded
- Think about the speaker's perspective
- Be very, very patient
- Pay attention to the tone that is being used
- Pay attention to the speaker's gestures, facial expressions and eye movements
- Not try and rush the person
- Not let the speaker's mannerisms or habits irritate or distract you

### 8.5.3.2 The Importance of Speaking Effectively

How successfully a message gets conveyed depends entirely on how effectively you are able to get it through. An effective speaker is one who enunciates properly, pronounces words correctly, chooses the right words and speaks at a pace that is easily understandable. Besides this, the words spoken out loud need to match the gestures, tone and body language used.

What you say, and the tone in which you say it, results in numerous perceptions being formed. A person who speaks hesitantly may be perceived as having low self-esteem or lacking in knowledge of the discussed topic. Those with a quiet voice may very well be labelled as shy. And those who speak in commanding tones with high levels of clarity, are usually considered to be extremely confident. This makes speaking a very critical communication skill.

### 8.5.3.3 How to Speak Effectively?

To speak effectively you should:

- Incorporate body language in your speech like eye contact, smiling, nodding, gesturing etc.
- Build a draft of your speech before actually making your speech.
- Ensure that all your emotions and feelings are under control.
- Pronounce your words distinctly with the correct pitch and intensity. Your speech should be crystal clear at all times. Use a pleasant and natural tone when speaking. Your audience should not feel like you are putting on an accent or being unnatural in any way.
- Use precise and specific words to drive your message home. Ambiguity should be avoided at all costs.
- Ensure that your speech has a logical flow.
- Be brief. Don't add any unnecessary information.
- Make a conscious effort to avoid irritating mannerisms like fidgeting, twitching etc.

- Choose your words carefully and use simple words that the majority of the audience will have no difficulty understanding.
- Use visual aids like slides or a whiteboard.
- Speak slowly so that your audience can easily understand what you're saying. However, be careful not to speak too slowly because this can come across as stiff, unprepared or even condescending.
- Remember to pause at the right moments.

### Tips



- If you're finding it difficult to focus on what someone is saying, try repeating their words in your head.
- Always maintain eye contact with the person that you are communicating with, when speaking as well as listening. This conveys and also encourages interest in the conversation.

## 8.5.4 Problem Solving & Negotiation Skills

As per The Concise Oxford Dictionary (1995), a problem is, "A doubtful or difficult matter requiring a solution"

All problems contain two elements:

1. Goals
2. Obstacles

The aim of problem solving is to recognize the obstacles and remove them in order to achieve the goals.

### 8.5.4.1 How to Solve Problems?

Solving a problem requires a level of rational thinking. Here are some logical steps to follow when faced with an issue:

- **Step 1:** Identify the problem
- **Step 2:** Study the problem in detail
- **Step 3:** List all possible solutions
- **Step 4:** Select the best solution
- **Step 5:** Implement the chosen solution
- **Step 6:** Check that the problem has really been solved

### 8.5.4.2 Important Traits for Problem Solving

Highly developed problem-solving skills are critical for both, business owners and their employees. The following personality traits play a big role in how effectively problems are solved:

- Being open minded
- Asking the right questions
- Being proactive
- Not panicking
- Having a positive attitude
- Focusing on the right problem

### 8.5.4.3 How to Assess for Problem Solving Skills?

As an entrepreneur, it would be a good idea to assess the level of problem solving skills of potential candidates before hiring them. Some ways to assess this skill are through:

1. **Application forms:** Ask for proof of the candidate's problem solving skills in the application form.
2. **Psychometric tests:** Give potential candidates logical reasoning and critical thinking tests and see how they fare.
3. **Interviews:** Create hypothetical problematic situations or raise ethical questions and see how the candidates respond.
4. **Technical questions:** Give candidates examples of real life problems and evaluate their thought process.

### 8.5.4.4 What is Negotiation?

Negotiation is a method used to settle differences. The aim of negotiation is to resolve differences through a compromise or agreement while avoiding disputes. Without negotiation, conflicts are likely to lead to resentment between people. Good negotiation skills help satisfy both parties and go a long way towards developing strong relationships.

#### Why Negotiate?

Starting a business requires many, many negotiations. Some negotiations are small while others are critical enough to make or break a start-up. Negotiation also plays a big role inside the workplace. As an entrepreneur, you need to not only know how to negotiate yourself, but also how to train employees in the art of negotiation.

## How to Negotiate?

Take a look at some steps to help you negotiate:

- **Step 1:** Pre-Negotiation Preparation: Agree on where to meet to discuss the problem, decide who all will be present and set a time limit for the discussion.
- **Step 2:** Discuss the problem: This involves asking questions, listening to the other side, putting your views forward and clarifying doubts.
- **Step 3:** Clarify the Objective: Ensure that both parties want to solve the same problem and reach the same goal.
- **Step 4:** Aim for a Win-Win Outcome: Try your best to be open minded when negotiating. Compromise and offer substitute solutions to arrive at an outcome where both win.
- **Step 5:** Clearly Define the Agreement: When an agreement has been reached, the details of the agreement should be crystal clear to both sides, with no scope for misunderstandings.
- **Step 6:** Implement the Agreed Upon Solution: Agree on a course of action to set the solution in motion.

## Tips

- Know exactly what you want before you work towards getting it
- Give more importance to listening and thinking, than speaking
- Focus on building a relationship rather than winning
- Remember that your people skills will affect the outcome
- Know when to walk away – sometimes reaching an agreement may not be possible

## 8.5.5 Business Opportunities Identification

*“The entrepreneur always searches for change, responds to it and exploits it as an opportunity.”*

*Peter Drucker*

The ability to find good business opportunities is an important characteristic of an entrepreneur.

### What is an Opportunity?

The word opportunity suggests a good chance or a favourable situation to do something offered by circumstances.

A business opportunity is typically a good/favourable change that can be used to run a business in a given environment, at a given point of time.

### Common Questions Faced by Entrepreneurs

A critical question that all entrepreneurs face is how to go about finding the business opportunity that is right for them.

Some common questions that entrepreneurs constantly think about are:

- Should the new enterprise introduce a new product or service based on an unmet need?
- Should the new enterprise select an existing product or service from one market and offer it in another where it may not be available?
- Should the enterprise be based on a tried and tested formula that has worked elsewhere?

It is therefore extremely important that entrepreneurs must learn how to identify new and existing business opportunities and evaluate their chances of success.

### When is an Idea an Opportunity?

An idea is an opportunity when:

- It creates or adds value to a customer
- It solves a significant problem, removes a pain point or meets a demand
- Has a robust market and profit margin
- Is a good fit with the founder and management team at the right time and place

### Factors to Consider When Looking for Opportunities

Consider the following when looking for business opportunities:

- Economic trends
- Changes in funding
- Changing relationships between vendors, partners and suppliers
- Market trends
- Changes in political support
- Shift in target audience

### Ways to Identify New Business Opportunities

- **Identify Market Inefficiencies:** When looking at a market, consider what inefficiencies are present in the market. Think about ways to correct these inefficiencies.
- **Remove Key Hassles:** Rather than create a new product or service, you can innovatively improve a product, service or process.
- **Create Something New:** Think about how you can create a new experience for customers, based on existing business models.
- **Pick a Growing Sector/Industry:** Research and find out which sectors or industries are growing and think about what opportunities you can tap in the same.
- **Think About Product Differentiation:** If you already have a product in mind, think about ways to set it apart from the existing ones.

## Ways to Identify Business Opportunities within Your Business

### 1. SWOT Analysis

An excellent way to identify opportunities inside your business is by creating a SWOT analysis. The acronym SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis framework:

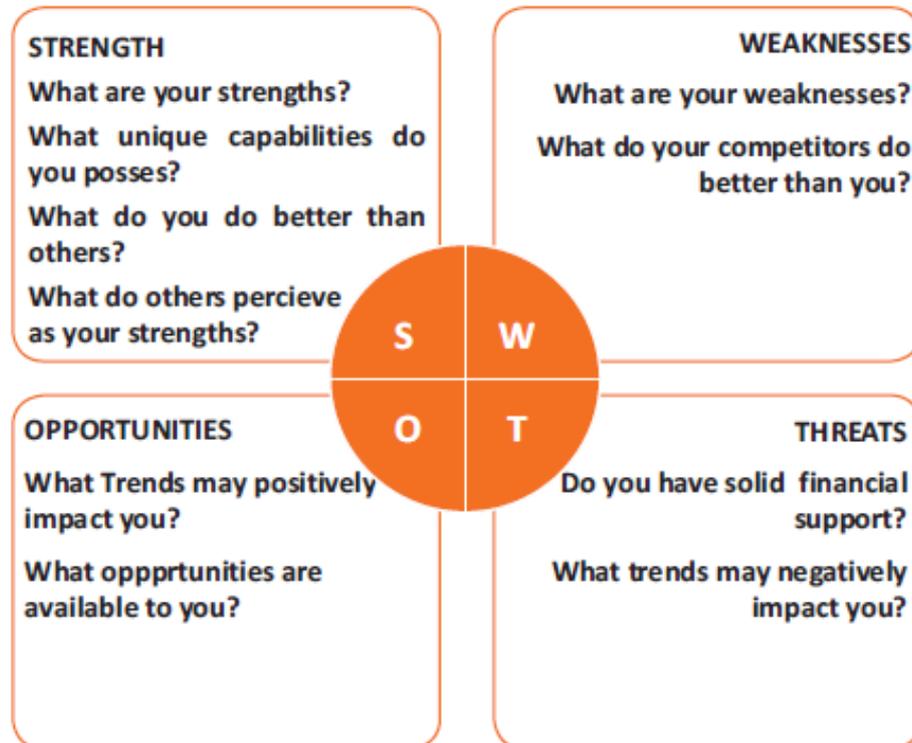


Fig.8.5.1. SWOT Analysis

#### Consider the following when looking for business opportunities:

By looking at yourself and your competitors using the SWOT framework, you can uncover opportunities that you can exploit, as well as manage and eliminate threats that could derail your success.

### 2. Establishing Your USP

Establish your USP in such a way that positions you differently from your competitors. Identify the uniqueness about your product that will motivate customers to buy from you and then promote that reason.

#### Opportunity Analysis

Once you have identified an opportunity, you need to analyse it. To analyse an opportunity, you must:

- Focus on the idea
- Focus on the market of the idea
- Talk to industry leaders in the same space as the idea
- Talk to players in the same space as the idea

**Tips**

- Remember, opportunities are situational.
- Look for a proven track record.
- Avoid the latest craze.
- Love your idea.

### 8.5.6 Entrepreneurship Support Eco-System

An entrepreneur is a person who:

- Does not work for an employee
- Runs a small enterprise
- Assumes all the risks and rewards of the enterprise, idea, good or service

#### Types of Entrepreneurs

There are four main types of entrepreneurs:

1. **The Traditional Entrepreneur:** This type of entrepreneur usually has some kind of skill – they can be a carpenter, mechanic, cook etc. They have businesses that have been around for numerous years like restaurants, shops and carpenters. Typically, they gain plenty of experience in a particular industry before they begin their own business in a similar field.
2. **The Growth Potential Entrepreneur:** The desire of this type of entrepreneur is to start an enterprise that will grow, win many customers and make lots of money. Their ultimate aim is to eventually sell their enterprise for a nice profit. Such entrepreneurs usually have a science or technical background.
3. **The Project-Oriented Entrepreneur:** This type of entrepreneur generally has a background in the Arts or psychology. Their enterprises tend to be focus on something that they are very passionate about.
4. **The Lifestyle Entrepreneur:** This type of entrepreneur has usually worked as a teacher or a secretary. They are more interested in selling something that people will enjoy, rather than making lots of money.

#### Characteristics of an Entrepreneur

Successful entrepreneurs have the following characteristics:

- They are highly motivated
- They are creative and persuasive
- They are mentally prepared to handle each and every task
- They have excellent business skills – they know how to evaluate their cash flow, sales and revenue

- They are willing to take great risks
- They are very proactive – this means they are willing to do the work themselves, rather than wait for someone else to do it
- They have a vision – they are able to see the big picture
- They are flexible and open-minded
- They are good at making decisions

### 8.5.6.1 Entrepreneur Success Stories

#### **Dhiru Bhai Ambani**

*Dhirubhai Ambani began his entrepreneurial career by selling “bhajias” to pilgrims in Mount Girnar on weekends. At 16, he moved to Yemen where he worked as a gas-station attendant, and as a clerk in an oil company. He returned to India with Rs. 50,000 and started a textile trading company. Reliance went on to become the first Indian company to raise money in global markets and the first Indian company to feature in Forbes 500 list.*

#### **Dr. Karsanbhai Patel**

*Karsanbhai Patel made detergent powder in the backyard of his house. He sold his product door-to-door and offered a money back guarantee with every pack that was sold. He charged Rs.3 per kg when the cheapest detergent at that time was Rs.13 per kg. Dr. Patel eventually started Nirma which became a whole new segment in the Indian domestic detergent market.*

### 8.5.6.2 The Entrepreneurial Process

Let's take a look at the stages of the entrepreneurial process.

- **Stage 1:** Idea Generation. The entrepreneurial process begins with an idea that has been thought of by the entrepreneur. The idea is a problem that has the potential to be solved.
- **Stage 2:** Germination or Recognition. In this stage a possible solution to the identified problem is thought of.
- **Stage 3:** Preparation or Rationalization. The problem is studied further and research is done to find out how others have tried to solve the same problem.
- **Stage 4:** Incubation or Fantasizing. This stage involves creative thinking for the purpose of coming up with more ideas. Less thought is given to the problem areas.
- **Stage 5:** Feasibility Study: The next step is the creation of a feasibility study to determine if the idea will make a profit and if it should be seen through.
- **Stage 6:** Illumination or Realization. This is when all uncertain areas suddenly become clear. The entrepreneur feels confident that his idea has merit.
- **Stage 7:** Verification or Validation. In this final stage, the idea is verified to see if it works and if it is useful.

Take a look at the diagram below to get a better idea of this process.

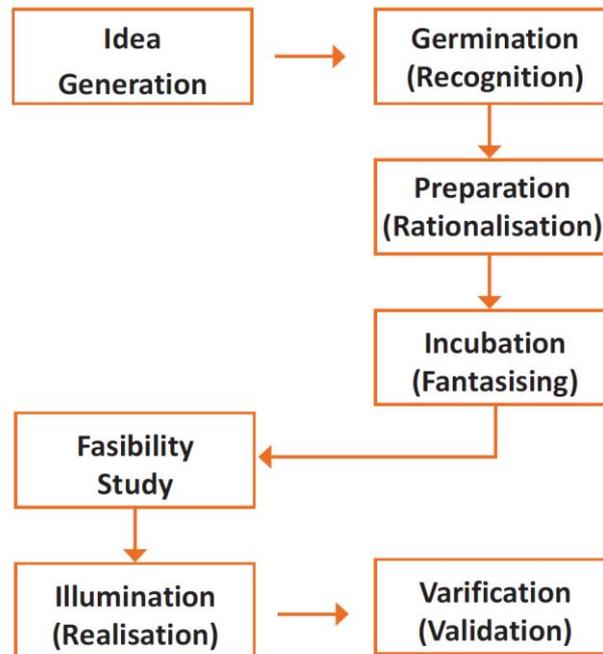


Fig.8.5.2: Stages of the entrepreneurial process

### 8.5.6.3 What is an Entrepreneur?

The entrepreneurship support ecosystem signifies the collective and complete nature of entrepreneurship. New companies emerge and flourish not only because of the courageous, visionary entrepreneurs who launch them, but they thrive as they are set in an environment or 'ecosystem' made of private and public participants. These players nurture and sustain the new ventures, facilitating the entrepreneurs' efforts. An entrepreneurship ecosystem comprises of the following six domains:

1. **Favourable Culture:** This includes elements such as tolerance of risk and errors, valuable networking and positive social standing of the entrepreneur.
2. **Facilitating Policies & Leadership:** This includes regulatory framework incentives and existence of public research institutes.
3. **Financing Options:** Angel financing, venture capitalists and micro loans would be good examples of this.
4. **Human Capital:** This refers to trained and untrained labour, entrepreneurs and entrepreneurship training programmes, etc.
5. **Conducive Markets for Products & Services:** This refers to an existence or scope of existence of a market for the product/service.
6. **Institutional & Infrastructural Support:** This includes legal and financing advisers, telecommunications, digital and transportation infrastructure, and entrepreneurship networking programmes.

These domains indicate whether there is a strong entrepreneurship support ecosystem and what actions should the government put in place to further encourage this ecosystem.

The six domains and their various elements have been graphically depicted.

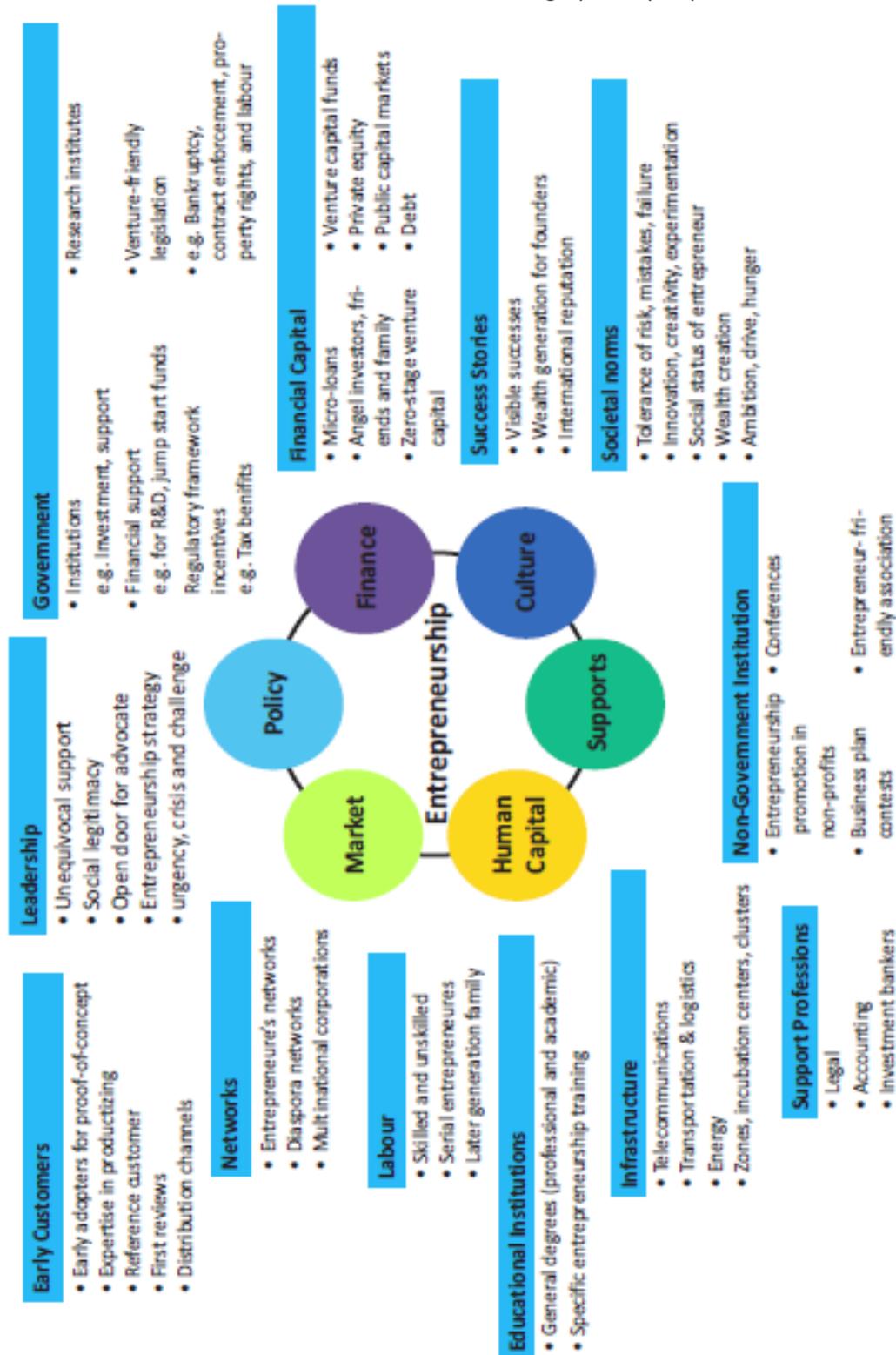


Fig.7.5.3. Entrepreneurship at a Glance

Every entrepreneurship support ecosystem is unique and all the elements of the ecosystem are interdependent. Although every region's entrepreneurship ecosystem can be broadly described by the above features, each ecosystem is the result of the hundred elements interacting in highly complex and particular ways.

Entrepreneurship ecosystems eventually become (largely) self-sustaining. When the six domains are resilient enough, they are mutually beneficial. At this point, government involvement can and should be significantly minimized. Public leaders do not need to invest a lot to sustain the ecosystem. It is imperative that the entrepreneurship ecosystem incentives are formulated to be self-liquidating, hence focusing on sustainability of the environment.

#### 8.5.6.4 Government's Role in the Entrepreneurship Ecosystem

Encouraging new ventures is a major focus for policymakers. Governments across the world are recognizing that new businesses flourish in distinctive types of supportive environments. Policymakers should study the scenario and take into account the following points whilst they formulate policies and regulations that enable successful entrepreneurship support ecosystems.

- Policymakers should avoid regulations that discourage new entrants and work towards building efficient methods for business startups. Policies and regulations which help existing, leading firms over entrepreneurial ventures, limit competition and obstruct growth/formation of new companies.
- Therefore, in place of developing policies that are intended to improve market failures, policymakers should interact with entrepreneurs and understand the challenges faced by them. The feedback is used to develop policies which encourage exploring ideas, developing new products and increase the rates of deal flow.
- Entrepreneurial supporters ideally need to create a database that enables identifying who the members in the ecosystem are and how they are connected. The ecosystem database are useful tools in developing engagement strategies.
- Disruptions are inevitable in economic as well as social life. However, it's important to note that economic disruption gives rise to entrepreneurial opportunities. Architects of the entrepreneurship ecosystems (entrepreneurs, mentors, policymakers and consumers,) should anticipate these dips, thus capitalizing on the opportunities they create.

#### 8.5.6.5 Snapshot of the Entrepreneurship Ecosystem in India

Entrepreneurship has earned a newfound respect in India. Many Indians, with exposure to the world of business, who traditionally would have opted for a job, are setting up their own ventures. Many elements of the entrepreneurship ecosystem are beginning to come together. For example, increase in venture capitalists, government schemes and incubators, academia industry linkages, and emerging clusters and support to rural economy.

All these initiatives are effective but there is a need to scale up and enrich the ecosystem further in the following ways:

1. We need to review our attitude towards failures and accept them as learning experiences.
2. We must encourage the educated to become entrepreneurs and provide students in schools and colleges with entrepreneurship skills.
3. Universities, research labs and the government need to play the role of enablers in the entrepreneurship support ecosystem.
4. Policymakers need to focus on reducing the obstacles such as corruption, red tape and bureaucracy.
5. We need to improve our legal systems and court international venture capital firms and bring them to India.
6. We must devise policies and methods to reach the secondary and tertiary towns in India, where people do not have access to the same resources available in the cities.

Today, there is a huge opportunity in this country to introduce innovative solutions that are capable of scaling up, and collaborating within the ecosystem as well as enriching it.

#### 8.5.6.6 Make in India Campaign

Every entrepreneur has certain needs. Some of their important needs are:

- To easily get loans
- To easily find investors
- To get tax exemptions
- To easily access resources and good infrastructure
- To enjoy a procedure that is free of hassles and is quick
- To be able to easily partner with other firms

The Make in India campaign, launched by Prime Minister Modi aims to satisfy all these needs of young, aspiring entrepreneurs. Its objective is to:

- Make investment easy
- Support new ideas
- Enhance skill development
- Safeguard the ideas of entrepreneurs
- Create state-of-the-art facilities for manufacturing goods

#### Tips

- Research the existing market, network with other entrepreneurs, venture capitalists, angel investors, and thoroughly review the policies in place to enable your entrepreneurship.
- Failure is a stepping stone and not the end of the road. Review yours and your peers' errors and correct them in your future venture.
- Be proactive in your ecosystem. Identify the key features of your ecosystem and enrich them to ensure self-sustainability of your entrepreneurship support ecosystem.

## 8.5.7 Risk Appetite & Resilience

### Entrepreneurship and Risk

Entrepreneurs are inherently risk takers. They are path-makers not path-takers. Unlike a normal, cautious person, an entrepreneur would not think twice about quitting his job (his sole income) and taking a risk on himself and his idea.

An entrepreneur is aware that while pursuing his dreams, assumptions can be proven wrong and unforeseen events may arise. He knows that after dealing with numerous problems, success is still not guaranteed. Entrepreneurship is synonymous with the ability to take risks. This ability, called risk-appetite, is an entrepreneurial trait that is partly genetic and partly acquired.

### What is Risk Appetite?

Risk appetite is defined as the extent to which a company is equipped to take risk, in order to achieve its objectives. Essentially, it refers to the balance, struck by the company, between possible profits and the hazards caused by changes in the environment (economic ecosystem, policies, etc.). Taking on more risk may lead to higher rewards but have a high probability of losses as well. However, being too conservative may go against the company as it can miss out on good opportunities to grow and reach their objectives.

The levels of risk appetite can be broadly categorized as “low”, “medium” and “high.” The company’s entrepreneur(s) need to assess all possible alternatives and choose the option most likely to succeed. Companies have varying levels of risk appetites for different objectives. The levels depend on:

- The type of industry
- Market pressures
- Company objectives

For example, a start-up with a revolutionary concept will have a very high risk appetite. The start-up can afford short term failures before it achieves longer term success. This type of appetite will not remain constant and will be adjusted to account for the present circumstances of the company.

### Risk Appetite Statement

Companies have to define and articulate their risk appetite in sync with decisions made about their objectives and opportunities. The point of having a risk appetite statement is to have a framework that clearly states the acceptance and management of risk in business. It sets risk taking limits within the company. The risk appetite statement should convey the following:

- The nature of risks the business faces.
- Which risks the company is comfortable taking on and which risks are unacceptable.
- How much risk to accept in all the risk categories.
- The desired trade-off between risk and reward.
- Measures of risk and methods of examining and regulating risk exposures.

## Entrepreneurship and Resilience

Entrepreneurs are characterized by a set of qualities known as resilience. These qualities play an especially large role in the early stages of developing an enterprise. Risk resilience is an extremely valuable characteristic as it is believed to protect entrepreneurs against the threat of challenges and changes in the business environment.

### What is Entrepreneurial Resilience?

Resilience is used to describe individuals who have the ability to overcome setbacks related to their life and career aspirations. A resilient person is someone who is capable of easily and quickly recovering from setbacks. For the entrepreneur, resilience is a critical trait. Entrepreneurial resilience can be enhanced in the following ways:

- By developing a professional network of coaches and mentors
- By accepting that change is a part of life
- By viewing obstacles as something that can be overcome

### Characteristics of a Resilient Entrepreneur

The characteristics required to make an entrepreneur resilient enough to go the whole way in their business enterprise are:

- A strong internal sense of control
- Ability to diversify and expand
- Strong social connections
- Survivor attitude
- Skill to learn from setbacks
- Cash-flow conscious habits
- Ability to look at the bigger picture
- Attention to detail

### Tips

- Cultivate a great network of clients, suppliers, peers, friends and family. This will not only help you promote your business, but will also help you learn, identify new opportunities and stay tuned to changes in the market.
- Don't dwell on setbacks. Focus on what you need to do next to get moving again.
- While you should try, and curtail expenses, ensure that it is not at the cost of your growth.

## 8.5.8 Success & Failures

### Understanding Successes and Failures in Entrepreneurship

Shyam is a famous entrepreneur, known for his success story. But what most people don't know, is that Shyam failed numerous times before his enterprise became a success. Read his interview to get an idea of what entrepreneurship is really about, straight from an entrepreneur who has both, failed and succeeded.

**Interviewer:** Shyam, I have heard that entrepreneurs are great risk-takers who are never afraid of failing. Is this true?

**Shyam:** Ha ha, no of course it's not true! Most people believe that entrepreneurs need to be fearlessly enthusiastic. But the truth is, fear is a very normal and valid human reaction, especially when you are planning to start your own business! In fact, my biggest fear was the fear of failing. The reality is, entrepreneurs fail as much as they succeed. The trick is to not allow the fear of failing to stop you from going ahead with your plans. Remember, failures are lessons for future success!

**Interviewer:** What, according to you, is the reason that entrepreneurs fail?

**Shyam:** Well, there is no one single reason why entrepreneurs fail. An entrepreneur can fail due to numerous reasons. You could fail because you have allowed your fear of failure to defeat you. You could fail because you are unwilling to delegate (distribute) work. As the saying goes, "You can do anything, but not everything!" You could fail because you gave up too easily – maybe you were not persistent enough. You could fail because you were focusing your energy on small, insignificant tasks and ignoring the tasks that were most important. Other reasons for failing are partnering with the wrong people, not being able to sell your product to the right customers at the right time at the right price... and many more reasons!

**Interviewer:** As an entrepreneur, how do you feel failure should be looked at?

**Shyam:** I believe we should all look at failure as an asset, rather than as something negative. The way I see it, if you have an idea, you should try to make it work, even if there is a chance that you will fail. That's because not trying is failure right there, anyway! And failure is not the worst thing that can happen. I think having regrets because of not trying, and wondering 'what if' is far worse than trying and actually failing.

**Interviewer:** How did you feel when you failed for the first time?

**Shyam:** I was completely heartbroken! It was a very painful experience. But the good news is, you do recover from the failure. And with every subsequent failure, the recovery process gets a lot easier. That's because you start to see each failure more as a lesson that will eventually help you succeed, rather than as an obstacle that you cannot overcome. You will start to realize that failure has many benefits.

**Interviewer:** Can you tell us about some of the benefits of failing?

**Shyam:** One of the benefits that I have experienced personally from failing is that the failure made me see things in a new light. It gave me answers that I didn't have before. Failure can make you a lot stronger. It also helps keep your ego in control.

**Interviewer:** What advice would you give entrepreneurs who are about to start their own enterprises?

**Shyam:** I would tell them to do their research and ensure that their product is something that is actually wanted by customers. I'd tell them to pick their partners and employees very wisely and cautiously. I'd tell them that it's very important to be aggressive – push and market your product as aggressively as possible. I would warn them that starting an enterprise is very expensive and that they should be prepared for a situation where they run out of money. I would tell them to create long term goals and put a plan in action to achieve that goal. I would tell them to build a product that is truly unique. Be very careful and ensure that you are not copying another start-up. Lastly, I'd tell them that it's very important that they find the right investors.

**Interviewer:** That's some really helpful advice, Shyam! I'm sure this will help all entrepreneurs to be more prepared before they begin their journey! Thank you for all your insight!

### Tips



- Remember that nothing is impossible.
- Identify your mission and your purpose before you start.
- Plan your next steps – don't make decisions hastily.

## UNIT 8.6: Preparing to be an Entrepreneur

### Unit Objectives

**At the end of this unit, you will be able to:**

1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Discuss the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage your own enterprise
16. List important questions that every entrepreneur should ask before starting an enterprise

### 8.6.1 Market Study/The 4 Ps of Marketing/Importance of an IDEA

#### Understanding Market Research

Market research is the process of gathering, analysing and interpreting market information on a product or service that is being sold in that market. It also includes information on:

- Past, present and prospective customers
- Customer characteristics and spending habits
- The location and needs of the target market
- The overall industry
- Relevant competitors

Market research involves two types of data:

- **Primary information.** This is research collected by yourself or by someone hired by you.
- **Secondary information.** This is research that already exists and is out there for you to find and use.

### Primary research

Primary research can be of two types:

- **Exploratory:** This is open-ended and usually involves detailed, unstructured interviews.
- **Specific:** This is precise and involves structured, formal interviews. Conducting specific

### Secondary research

Secondary research uses outside information. Some common secondary sources are:

- **Public sources:** These are usually free and have a lot of good information. Examples are government departments, business departments of public libraries etc.
- **Commercial sources:** These offer valuable information but usually require a fee to be paid. Examples are research and trade associations, banks and other financial institutions etc.
- **Educational institutions:** These offer a wealth of information. Examples are colleges, universities, technical institutes etc.

## 8.6.1.1 The 4 Ps of Marketing

The 4 Ps of marketing are Product, Price, Promotion and Place.

Let's look at each of these 4 Ps in detail.

### Product

A product can be tangible, like a good or intangible, like a service.

Whatever your product is, it is critical that you have a clear understanding of what you are offering, and what its unique characteristics are, before you begin with the marketing process.

Some questions to ask yourself are:

- What need does the customer have for the product/service?
- What needs does it satisfy?
- Are there any more features that can be added?
- Does it have any expensive and unnecessary features?
- How will customers use it?
- What should it be called?
- How is it different from similar products?
- How much will it cost to produce?
- Can it be sold at a profit?

### Price

Once all the elements of Product have been established, the Price factor needs to be considered. The Price of a Product will depend on several factors such as profit margins, supply, demand and the marketing strategy.

Some typical questions to ask yourself include:

- What is the value of the product/service to customers?
- Do local products/services have established price points?
- Is the customer price sensitive?
- Should discounts be offered?
- How is your price compared to that of your competitors?

### **Promotion**

Once you are certain about your Product and your Price, the next step is to look at ways to promote it. Some key elements of promotion are advertising, public relations, social media marketing, email marketing, search engine marketing, video marketing and more.

Some questions to ask yourself are:

- Where should you promote your product or service?
- What is the best medium to use to reach your target audience
- When would be the best time to promote your product?
- How are your competitors promoting their products?

### **Place**

According to most marketers, the basis of marketing is about offering the right product, at the right price, at the right place, at the right time. For this reason, selecting the best possible location is critical for converting prospective clients into actual clients.

Some questions to ask yourself are:

- Will your product or service be looked for in a physical store, online or both?
- What should you do to access the most appropriate distribution channels?
- Will you require a sales force?
- Where are your competitors offering their products or services?
- Should you follow in your competitors' footsteps?
- Should you do something different from your competitors?

### **Importance of an IDEA**

Ideas are the foundation of progress. An idea can be small or ground-breaking, easy to accomplish or extremely complicated to implement. Whatever the case, the fact that it is an idea gives it merit. Without ideas, nothing is possible. Most people are afraid to speak out their ideas, out for fear of being ridiculed. However, if are an entrepreneur and want to remain competitive and innovative, you need to bring your ideas out into the light.

Some ways to do this are by:

- Establishing a culture of brainstorming where you invite all interested parties to contribute
- Discussing ideas out loud so that people can add their ideas, views, opinions to them

- Being open minded and not limiting your ideas, even if the idea who have seems ridiculous
- Not discarding ideas that you don't work on immediately, but instead making a note of them and shelving them so they can be revisited at a later date.

### Tips



- Keep in mind that good ideas do not always have to be unique.
- Remember that timing plays a huge role in determining the success of your idea.
- Situations and circumstances will always change, so be flexible and adapt your idea accordingly.

## 8.6.2 Business Entity Concepts: Basic Business Terminology

If your aim is to start and run a business, it is crucial that you have a good understanding of basic business terms. Every entrepreneur should be well versed in the following terms:

- **Accounting:** A systematic method of recording and reporting financial transactions.
- **Accounts payable:** Money owed by a company to its creditors.
- **Accounts Receivable:** The amount a company is owed by its clients.
- **Assets:** The value of everything a company owns and uses to conduct its business.
- **Balance Sheet:** A snapshot of a company's assets, liabilities and owner's equity at a given moment.
- **Bottom Line:** The total amount a business has earned or lost at the end of a month.
- **Business:** An organization that operates with the aim of making a profit.
- **Business to Business (B2B):** A business that sells goods or services to another business.
- **Business to Consumer (B2C):** A business that sells goods or services directly to the end user.
- **Capital:** The money a business has in its accounts, assets and investments. The two main types of capital are debt and equity.
- **Cash Flow:** The overall movement of funds through a business each month, including income and expenses.
- **Cash Flow Statement:** A statement showing the money that entered and exited a business during a specific period of time.
- **Contract:** A formal agreement to do work for pay.
- **Depreciation:** The degrading value of an asset over time.
- **Expense:** The costs that a business incurs through its operations.
- **Finance:** The management and allocation of money and other assets.
- **Financial Report:** A comprehensive account of a business' transactions and expenses.
- **Fixed Cost:** A one-time expense.

- **Income Statement (Profit and Loss Statement):** Shows the profitability of a business during a period of time.
- **Liabilities:** The value of what a business owes to someone else.
- **Marketing:** The process of promoting, selling and distributing a product or service.
- **Net Income/Profit:** Revenues minus expenses.
- **Net Worth:** The total value of a business.
- **Payback Period:** The amount of time it takes to recover the initial investment of a business.
- **Profit Margin:** The ratio of profit, divided by revenue, displayed as a percentage.
- **Return on Investment (ROI):** The amount of money a business gets as return from an investment.
- **Revenue:** The total amount of income before expenses are subtracted.
- **Sales Prospect:** A potential customer.
- **Supplier:** A provider of supplies to a business.
- **Target Market:** A specific group of customers at which a company's products and services are aimed.
- **Valuation:** An estimate of the overall worth of the business.
- **Variable Cost:** Expenses that change in proportion to the activity of a business.
- **Working Capital:** Calculated as current assets minus current liabilities.

### 8.6.3 CRM & Networking

#### What is CRM?

CRM stands for Customer Relationship Management. Originally the expression Customer Relationship Management meant managing one's relationship with customers. However, today it refers to IT systems and software designed to help companies manage their relationships.

#### The Need for CRM

The better a company can manage its relationships with its customers, the higher the chances of the company's success. For any entrepreneur, the ability to successfully retain existing customers and expand the enterprise is paramount. This is why IT systems that focus on addressing the problems of dealing with customers on a daily basis are becoming more and more in demand.

Customer needs change over time, and technology can make it easier to understand what customers really want. This insight helps companies to be more responsive to the needs of their customers. It enables them to modify their business operations when required, so that their customers are always served in the best manner possible. Simply put, CRM helps companies recognize the value of their clients and enables them to capitalize on improved customer relations.

### Benefits of CRM

CRM has a number of important benefits:

- It helps improve relations with existing customers which can lead to:
  - Increased sales
  - Identification of customer needs
  - Cross-selling of products
- It results in better marketing of one's products or services
- It results in better marketing of one's products or services
- It enhances customer satisfaction and retention
- It improves profitability by identifying and focusing on the most profitable customers

### 8.6.3.1 What is Networking?

In business, networking means leveraging your business and personal connections in order to bring in a regular supply of new business. This marketing method is effective as well as low cost. It is a great way to develop sales opportunities and contacts. Networking can be based on referrals and introductions, or can take place via phone, email, and social and business networking websites.

#### The Need for Networking

Networking is an essential personal skill for business people, but it is even more important for entrepreneurs. The process of networking has its roots in relationship building. Networking results in greater communication and a stronger presence in the entrepreneurial ecosystem. This helps build strong relationships with other entrepreneurs.

Business networking events held across the globe play a huge role in connecting like-minded entrepreneurs who share the same fundamental beliefs in communication, exchanging ideas and converting ideas into realities. Such networking events also play a crucial role in connecting entrepreneurs with potential investors. Entrepreneurs may have vastly different experiences and backgrounds but they all have a common goal in mind – they all seek connection, inspiration, advice, opportunities and mentors. Networking offers them a platform to do just that.

#### Benefits of Networking

Networking offers numerous benefits for entrepreneurs. Some of the major benefits are:

- Getting high quality leads
- Increased business opportunities
- Good source of relevant connections
- Advice from like-minded entrepreneurs
- Gaining visibility and raising your profile
- Meeting positive and enthusiastic people

- Increased self-confidence
- Satisfaction from helping others
- Building strong and lasting friendships

### Tips



- Use social media interactions to identify needs and gather feedback.
- When networking, ask open-ended questions rather than yes/no type questions.

## 8.6.4 Business Plan: Why Set Goals?

Setting goals is important because it gives you long-term vision and short-term motivation. Goals can be short term, medium term and long term.

### Short-Term Goals

- These are specific goals for the immediate future.

**Example:** Repairing a machine that has failed.

### Medium-Term Goals

- These goals are built on your short-term goals.
- They do not need to be as specific as your short-term goals.

**Example:** Arranging for a service contract to ensure that your machines don't fail again.

### Long-Term Goals

These goals require time and planning.

They usually take a year or more to achieve.

**Example:** Planning your expenses so you can buy new machinery

### Why Create a Business Plan?

A business plan is a tool for understanding how your business is put together. It can be used to monitor progress, foster accountability and control the fate of the business. It usually offers a 3-5 year projection and outlines the plan that the company intends to follow to grow its revenues. A business plan is also a very important tool for getting the interest of key employees or future investors.

A business plan typically comprises of eight elements.

### 8.6.4.1 Elements of a Business Plan

#### Executive Summary

The executive summary follows the title page. The summary should clearly state your desires as the business owner in a short and business like way. It is an overview of your business and your plans. Ideally this should not be more than 1-2 pages.

Your Executive Summary should include:

- **The Mission Statement:** Explain what your business is all about.

##### **Example: Nike's Mission Statement**

Nike's mission statement is "To bring inspiration and innovation to every athlete in the world."

- **Company Information:** Provide information like when your business was formed, the names and roles of the founders, the number of employees, your business location(s) etc.
- **Growth Highlights:** Mention examples of company growth. Use graphs and charts where possible.
- **Your Products/Services:** Describe the products or services provided.
- **Financial Information:** Provide details on current bank and investors.
- **Summarize future plans:** Describe where you see your business in the future.

#### Business Description

The second section of your business plan needs to provide a detailed review of the different elements of your business. This will help potential investors to correctly understand your business goal and the uniqueness of your offering.

Your Business Description should include:

- A description of the nature of your business
- The market needs that you are aiming to satisfy
- The ways in which your products and services meet these needs
- The specific consumers and organizations that you intend to serve
- Your specific competitive advantages

#### Market Analysis

The market analysis section usually follows the business description. The aim of this section is to showcase your industry and market knowledge. This is also the section where you should lay down your research findings and conclusions.

Your Market Analysis should include:

- Your industry description and outlook
- Information on your target market
- The needs and demographics of your target audience
- The size of your target market

- The amount of market share you want to capture
- Your pricing structure
- Your competitive analysis
- Any regulatory requirements

### **Organization & Management**

This section should come immediately after the Market Analysis. Your Organization & Management section should include:

- Your company's organizational structure
- Details of your company's ownership
- Details of your management team
- Qualifications of your board of directors
- Detailed descriptions of each division/department and its function
- The salary and benefits package that you offer your people

### **Service or Product Line**

The next section is the service or product line section. This is where you describe your service or product, and stress on their benefits to potential and current customers. Explain in detail why your product of choice will fulfil the needs of your target audience.

Your Service or Product Line section should include:

- A description of your product/service
- A description of your product or service's life cycle
- A list of any copyright or patent filings
- A description of any R&D activities that you are involved in or planning

### **Marketing & Sales**

Once the Service or Product Line section of your plan has been completed, you should start on the description of the marketing and sales management strategy for your business.

Your Marketing section should include the following strategies:

- **Market penetration strategy:** This strategy focuses on selling your existing products or services in existing markets, in order to increase your market share.
- **Growth strategy:** This strategy focuses on increasing the amount of market share, even if it reduces earnings in the short-term.
- **Channels of distribution strategy:** These can be wholesalers, retailers, distributors and even the internet.
- **Communication strategy:** These can be written strategies (e-mail, text, chat), oral strategies (phone calls, video chats, face-to-face conversations), non-verbal strategies (body language, facial expressions, tone of voice) and visual strategies (signs, webpages, illustrations).

Your Sales section should include the following information:

- **A salesforce strategy:** This strategy focuses on increasing the revenue of the enterprise.
- **A breakdown of your sales activities:** This means detailing out how you intend to sell your products or services – will you sell it offline or online, how many units do you intend to sell, what price do you plan to sell each unit at, etc.

### Funding Request

This section is specifically for those who require funding for their venture. The Funding Request section should include the following information:

- How much funding you currently require.
- How much funding you will require over the next five years. This will depend on your long-term goals.
- The type of funding you want and how you plan to use it. Do you want funding that can be used only for a specific purpose, or funding that can be used for any kind of requirement?
- Strategic plans for the future. This will involve detailing out your long-term plans – what these plans are and how much money you will require to put these plans in motions.
- Historical and prospective financial information. This can be done by creating and maintaining all your financial records, right from the moment your enterprise started, to the present day. Documents required for this are your balance sheet which contains details of your company's assets and liabilities, your income statement which lists your company's revenues, expenses and net income for the year, your tax returns (usually for the last three years) and your cash flow budget which lists the cash that came in, the cash that went out and states whether you had a cash deficit (negative balance) or surplus (positive balance) at the end of each month.

### Financial Planning

Before you begin building your enterprise, you need to plan your finances. Take a look at the steps for financial planning:

- **Step 1:** Create a financial plan. This should include your goals, strategies and timelines for accomplishing these goals.
- **Step 2:** Organize all your important financial documents. Maintain a file to hold your investment details, bank statements, tax papers, credit card bills, insurance papers and any other financial records.
- **Step 3:** Calculate your net worth. This means figure out what you own (assets like your house, bank accounts, investments etc.), and then subtract what you owe (liabilities like loans, pending credit card amounts etc.) the amount you are left with is your net worth.
- **Step 4:** Make a spending plan. This means write down in detail where your money will come from, and where it will go.
- **Step 5:** Build an emergency fund. A good emergency fund contains enough money to cover at least 6 months' worth of expenses.
- **Step 6:** Set up your insurance. Insurance provides long term financial security and protects you against risk.

### Risk Management

As an entrepreneur, it is critical that you evaluate the risks involved with the type of enterprise that you want to start, before you begin setting up your company. Once you have identified potential risks, you can take steps to reduce them. Some ways to manage risks are:

- Research similar business and find out about their risks and how they were minimized.
- Evaluate current market trends and find out if similar products or services that launched a while ago are still being well received by the public.
- Think about whether you really have the required expertise to launch your product or service.
- Examine your finances and see if you have enough income to start your enterprise.
- Be aware of the current state of the economy, consider how the economy may change over time, and think about how your enterprise will be affected by any of those changes.
- Create a detailed business plan.

### Tips



- Ensure all the important elements are covered in your plan.
- Scrutinize the numbers thoroughly.
- Be concise and realistic.
- Be conservative in your approach and your projections.
- Use visuals like charts, graphs and images wherever possible.

## 8.6.5 Procedure and Formalities for Bank Finance

### The Need for Bank Finance

For entrepreneurs, one of the most difficult challenges faced involves securing funds for start-ups. With numerous funding options available, entrepreneurs need to take a close look at which funding methodology works best for them. In India, banks are one of the largest funders of start-ups, offering funding to thousands of start-ups every year.

### 8.6.5.1 What Information Should Entrepreneurs Offer Banks for Funding?

When approaching a bank, entrepreneurs must have a clear idea of the different criteria that banks use to screen, rate and process loan applications. Entrepreneurs must also be aware of the importance of providing banks with accurate and correct information. It is now easier than ever for financial institutions to track any default behaviour of loan applicants. Entrepreneurs looking for funding from banks must provide banks with information relating to their general credentials, financial situation and guarantees or collaterals that can be offered.

### General Credentials

This is where you, as an entrepreneur, provide the bank with background information on yourself. Such information includes:

- **Letter(s) of Introduction:** This letter should be written by a respected business person who knows you well enough to introduce you. The aim of this letter is set across your achievements and vouch for your character and integrity.
- **Your Profile:** This is basically your resume. You need to give the bank a good idea of your educational achievements, professional training, qualifications, employment record and achievements.
- **Business Brochure:** A business brochure typically provides information on company products, clients, how long the business has been running for etc.
- **Bank and Other References:** If you have an account with another bank, providing those bank references is a good idea.
- **Proof of Company Ownership or Registration:** In some cases, you may need to provide the bank with proof of company ownership and registration. A list of assets and liabilities may also be required.

### Financial Situation

Banks will expect current financial information on your enterprise. The standard financial reports you should be prepared with are:

- Balance Sheet
- Cash-Flow Statement
- Business Plan
- Profit-and-Loss Account
- Projected Sales and Revenues
- Feasibility Study

### Guarantees or Collaterals

Usually banks will refuse to grant you a loan without security. You can offer assets which the bank can seize and sell off if you do not repay the loan. Fixed assets like machinery, equipment, vehicles etc. are also considered to be security for loans.

## 8.6.5.2 The Lending Criteria of Banks

Your request for funding will have a higher chance of success if you can satisfy the following lending criteria:

- Good cash flow
- Adequate shareholders' funds
- Adequate security
- Experience in business
- Good reputation

### The Procedure

To apply for funding the following procedure will need to be followed.

- Submit your application form and all other required documents to the bank.
- The bank will carefully assess your credit worthiness and assign ratings by analysing your business information with respect to parameters like management, financial, operational and industry information as well as past loan performance.
- The bank will make a decision as to whether or not you should be given funding.

### Tips



- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

## 8.6.6 Enterprise Management - An Overview

To manage your enterprise effectively you need to look at many different aspects, right from managing the day-to-day activities to figuring out how to handle a large-scale event. Let's take a look at some simple steps to manage your company effectively.

### Step 1: Use your leadership skills and ask for advice when required.

Let's take the example of Ramu, an entrepreneur who has recently started his own enterprise. Ramu has good leadership skills – he is honest, communicates well, knows how to delegate work etc. These leadership skills definitely help Ramu in the management of his enterprise. However, sometimes Ramu comes across situations that he is unsure how to handle. What should Ramu do in this case? One solution is for him to find a more experienced manager who is willing to mentor him. Another solution is for Ramu to use his networking skills so that he can connect with managers from other organizations, who can give him advice on how to handle such situations.

### Step 2: Divide your work amongst others – realize that you cannot handle everything yourself.

Even the most skilled manager in the world will not be able to manage every single task that an enterprise will demand of him. A smart manager needs to realize that the key to managing his enterprise lies in his dividing all his work between those around him. This is known as delegation. However, delegating is not enough. A manager must delegate effectively if he wants to see results. This is important because delegating, when done incorrectly, can result in you creating even more work for yourself. To delegate effectively, you can start by making two lists. One list should contain the things that you know you need to handle yourself. The second list should contain the things that you are confident can be given to others to manage and handle.

Besides incorrect delegation, another issue that may arise is over-delegation. This means giving away too many of your tasks to others. The problem with this is, the more tasks you delegate, the more time you will spend tracking and monitoring the work progress of those you have handed the tasks to. This will leave you with very little time to finish your own work.

### **Step 3: Hire the right people for the job.**

Hiring the right people goes a long way towards effectively managing your enterprise. To hire the best people suited for the job, you need to be very careful with your interview process. You should ask potential candidates the right questions and evaluate their answers carefully. Carrying out background checks is always a good practice. Running a credit check is also a good idea, especially if the people you are planning to hire will be handling your money. Create a detailed job description for each role that you want filled and ensure that all candidates have a clear and correct understanding of the job description. You should also have an employee manual in place, where you put down every expectation that you have from your employees. All these actions will help ensure that the right people are approached for running your enterprise.

### **Step 4: Motivate your employees and train them well.**

Your enterprise can only be managed effectively if your employees are motivated to work hard for your enterprise. Part of being motivated involves your employees believing in the vision and mission of your enterprise and genuinely wanting to make efforts towards pursuing the same. You can motivate your employees with recognition, bonuses and rewards for achievements. You can also motivate them by telling them about how their efforts have led to the company's success. This will help them feel pride and give them a sense of responsibility that will increase their motivation. Besides motivating your people, your employees should be constantly trained in new practices and technologies. Remember, training is not a one-time effort. It is a consistent effort that needs to be carried out regularly.

### **Step 5: Train your people to handle your customers well.**

Your employees need to be well-versed in the art of customer management. This means they should be able to understand what their customers want, and also know how to satisfy their needs. For them to truly understand this, they need to see how you deal effectively with customers.

This is called leading by example. Show them how you sincerely listen to your clients and the efforts that you put into understand their requirements. Let them listen to the type of questions that you ask your clients so they understand which questions are appropriate.

### **Step 6: Market your enterprise effectively.**

Also, hire a marketing agency if you feel you need help in this area. Now that you know what is required to run your enterprise effectively, put these steps into play, and see how much easier managing your enterprise becomes!

**Tips**

- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

**8.6.7 Considering Entrepreneurship**

Questions to ask yourself before considering entrepreneurship.

1. Why am I starting a business?
2. What problem am I solving?
3. Have others attempted to solve this problem before? Did they succeed or fail?
4. Do I have a mentor<sup>1</sup> or industry expert that I can call on?
5. Who is my ideal customer<sup>2</sup>?
6. Who are my competitors<sup>3</sup>?
7. What makes my business idea different from other business ideas?
8. What are the key features of my product or service?
9. Have I done a SWOT<sup>4</sup> analysis?
10. What is the size of the market that will buy my product or service?
11. What would it take to build a minimum viable product<sup>5</sup> to test the market?
12. How much money do I need to get started?
13. Will I need to get a loan?
14. How soon will my products or services be available?
15. When will I break even<sup>6</sup> or make a profit?
16. How will those who invest in my idea make a profit?
17. How should I set up the legal structure<sup>7</sup> of my business?
18. What taxes<sup>8</sup> will I need to pay?
19. What kind of insurance<sup>9</sup> will I need?
20. Have I reached out to potential customers for feedback

**Tips**

- It is very important to validate your business ideas before you invest significant time, money and resources into it.
- The more questions you ask yourself, the more prepared you will be to handle to highs and lows of starting an enterprise.

**Footnotes:**

1. A mentor is a trusted and experienced person who is willing to coach and guide you.
2. A customer is someone who buys goods and/or services.
3. A competitor is a person or company that sells products and/or services similar to your products and/or services.
4. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. To conduct a SWOT analysis of your company, you need to list down all the strengths and weaknesses of your company, the opportunities that are present for your company and the threats faced by your company.
5. A minimum viable product is a product that has the fewest possible features, that can be sold to customers, for the purpose of getting feedback from customers on the product.
6. A company is said to break even when the profits of the company are equal to the costs.
7. The legal structure could be a sole proprietorship, partnership or limited liability partnership.
8. There are two types of taxes – direct taxes payable by a person or a company, or indirect taxes charged on goods and/or services.
9. There are two types of insurance – life insurance and general insurance. Life insurance covers human life while general insurance covers assets like animals, goods, cars etc.





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