



UNIT 4

Entrepreneurship as Innovation and Problem Solving

Learning Objectives:

After reading the chapter the student would be able to:

- Understand the role of entrepreneurs as problem solvers in society
- Appreciate the role of innovations in entrepreneurial ventures
- Explain the concept and importance of social entrepreneurship
- State the meaning of entrepreneurial risk and risk management
- Differentiate between internal and external risk
- Describe the role played by technology in creation of new forms of business
- Explain the different barriers of entrepreneurship
- Identify the various support structure available for promoting entrepreneurship
- Understand the term Business Incubator

Case Study

Read the story and write a few lines what you have understood from it:

The Japanese have always loved fresh fish. But the waters close to Japan have not held many fish for decades.

So to feed the Japanese population, fishing boats got bigger and went farther than ever. The farther the fishermen went, the longer it took to bring in the fish. If the return trip took more than a few days, the fish were not fresh. The Japanese did not like the taste.

To solve this problem, fishing companies installed freezers on their boats. They would catch the fish and freeze them at sea. Freezers allowed the boats to go farther and stay longer. However, the Japanese could taste the difference between fresh and frozen and they did not like frozen fish. The frozen fish brought a lower price.

So, fishing companies installed fish tanks. They would catch the fish and store them in the tanks. After a little thrashing around, the fish stopped moving. They were tired and dull, but alive. Unfortunately, the Japanese could still taste the difference. Because the fish did not move for days, they lost their fresh-fish taste.

The Japanese preferred the lively taste of fresh fish, not sluggish fish. So how did Japanese fishing companies solve this problem? How do they get fresh-tasting fish to Japan? How do the Japanese manage to keep the fish fresh?





To keep the fish tasting fresh, the Japanese fishing companies still put the fish in the tanks. But now they add a small shark to each tank. The shark eats a few fish, but most of the fish arrive in a very lively state. The fish are challenged.

Have you realized that some of us are also living in a pond, but most of the time feel tired and dull, so we need a 'Shark' in our life to keep us awake and moving? Basically in our lives, Sharks are new challenges to keep us active.

For an entrepreneur, the main motivating factor which urges them to continue in their entrepreneurial pursuit is challenge. The more intelligent, persistent and competent they are, the more they enjoy a challenge.

- From this story, it is clear that, to be a successful entrepreneur, one has to be a problem solver.
- Identify the various problems involved in the story, and the various solutions available to solve it.

Problem	Solution
1. Love for fish	Led to using of Bigger boats
2. Need for fresh fish	Installation of freezers
3. Taste of fresh fish	Installation of fish tanks
4. To improve taste of the fresh fish	Added shark

Who is an entrepreneur?

- He/she is the one who undertakes risks.

Why are they called problem solvers?

- Entrepreneurial actions are efforts to solve problems for others. Therefore, entrepreneurs are **Problem Solvers**. When one solves a problem a new value is created. In the business world, problem solvers take risks, but often create value by solving a customer or market problem, which is the key to creating a profitable enterprise. The more or larger problems an entrepreneurial organization solves, the more profit it can generate.

Case Study

Humble beginning of KFC

In 1930, the then 40 year old Sanders was operating a service station in Corby, Kentucky, USA and he encountered a lot of hungry travellers who stopped for gas. He saw that the travellers wanted to eat something as there was nothing available in that area. He saw and understood the problem. As a child, he used to cook for his siblings and so he knew how to cook, which instigated him to cook for the travellers. He did not even have a restaurant to serve food but his secret blend of 11 herbs and spices made his chicken recipe such a super hit among travellers that he started getting regular customers for his food, which prompted him to start a restaurant. This is the humble beginning of the world famous fast food chain "KFC- Kentucky Fried Chicken".



Solving Problems to Meet the Needs and Wants of People:

Most entrepreneurial ventures have survived when they solve problems of people, understanding their needs and accordingly changing the product to their needs. Study the following examples:

The Story of Kellogg: In 1894, Dr. John Harvey Kellogg was superintendent of a famous hospital and health spa in Battle Creek, Michigan. His younger brother, Will Keith Kellogg, was the business manager. The hospital stressed healthful living and kept its patients on a diet that eliminated caffeine, meat, alcohol and tobacco.

The brothers invented many foods that were made from grains, including a coffee substitute and a type of granola, which they forced through rollers and rolled into long sheets of dough. One day, after cooking some wheat, the men were called away. When they finally returned, the wheat had become stale. They decided to force the tempered grain through the rollers anyway.

Surprisingly, the grain did not come out in long sheets of dough. Instead, each wheat berry was flattened and came out as a thin flake. The brothers baked the flakes and were delighted with their new invention. They realized that they have discovered a new and delicious cereal, but they had no way of knowing that they had accidentally invented a whole new industry. Will Keith Kellogg eventually opened his own cereal business and its most famous product is still sold today. It wasn't until 1906 that *Kellogg's Corn Flakes* were made available to the general public.

Innovations Leading to Entrepreneurial Ventures

An entrepreneur is also known to be a person who habitually creates and innovates to build something of recognised value around perceived opportunities.

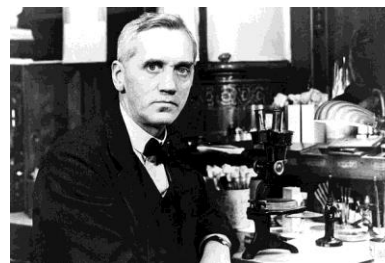
Creativity and innovation are the distinguishing marks of the entrepreneur. That is why they disturb markets and can challenge large established businesses. Creativity is a continuous activity for the entrepreneur, always seeing new ways of doing things with little concern for how difficult they might be or whether the resources are available. But creativity in the entrepreneur is combined with the ability to innovate, to take the idea and make it work in practice. Once the project is accomplished, the entrepreneur seeks another 'mountain to climb' because for him or her creativity and innovation are habitual, something that he or she has to keep on doing.

Let us look into some innovations that led to successful ventures:

Penicillin

Inventor: Sir Alexander Fleming, a scientist

What he was trying to make: Ironically, Fleming was searching for a "wonder drug" that could cure diseases. However, it wasn't until Fleming threw away his experiments that he found what he was looking for.





How it was created: Fleming noticed that a contaminated Petri dish, he had discarded, contained a mold that was dissolving all the bacteria around it. When he grew the mold by itself, he learned that it contained a powerful antibiotic, penicillin.

Potato Chips

Inventor: George Crum, a chef at the Carey Moon Lake House in Saratoga Springs

What they were trying to make: A plate of fried potato.

How it was created: One day, a customer sent back his plate of potatoes many times and kept asking for them to be more fried and thinner. Crum lost his temper, sliced the potatoes insanely thin and fried them until they were hard as a rock. To the chef's surprise, the customer loved them and wanted more! And this is how potato chips came into existence.

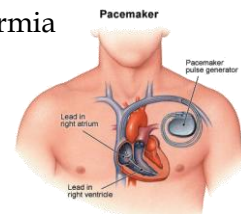


The Pacemaker

Inventor: John Hopps, an electrical engineer

What he was trying to make: Hopps was conducting research on hypothermia and was trying to use radio frequency heating to restore body temperature.

How it was created: During his experiment, he realized that if a heart stopped beating due to cooling, it could be started again by artificial stimulation. This realization led to the pacemaker.



Microwave Ovens

Inventor: Percy Spencer, an engineer (with the Raytheon Corporation)

What he was trying to make: The engineer was conducting a radar-related research project with a new vacuum tube.

How it was created: Spencer realized that the candy bar in his pocket began to melt during his experiments. He then put popcorn into the machine, and when it started to pop, he knew he had a revolutionary device on his hands.



Ink-Jet Printers

Inventor: A Canon engineer.

How it was created: After resting his hot iron on his pen by accident, ink was ejected from the pens point a few moments later. This principle led to the creation of the inkjet printer.



X-Rays

Inventor: Wilhem Roentgen, a physicist

What he was trying to make: He was interested in investigating the properties of cathode ray tubes.



How it was created: When light through tubes he noted that sheets of fluorescent paper in his lab were illuminated even though his machine had an opaque cover.

It is clear from these examples, that the various inventions people all over the world have tried, failed and succeeded in sometimes by mistake. Utility for the invention will be developed later in life, so immediate results for all one's actions should not be expected, but keep experimenting.

Social Entrepreneurship

What is Social Entrepreneurship?

According to **J. Gregory Dees**, "Social entrepreneurship is which combines the passion of a social mission with an image of business-like discipline, innovation, and determination".

Who is a Social Entrepreneur?

According to **Martin & Osberg**, "the Social Entrepreneur aims for value in the form of large-scale transformational benefit that accrues either to a significant segment of society or to society at large."

Moreover, the social entrepreneur targets his/her programs at the "underserved, neglected, or highly disadvantaged population that lacks the financial means or political clout to achieve the transformative benefit on its own."

A Case in Point: The Grameen Bank, a Model of Sustainability

Muhammad Yunus, the founder of the Grameen Bank and winner of the 2006 Nobel Peace Prize, found a solution to the plight of poor Bangladeshis who are unable to acquire funds to start their own business – microcredit. He lent \$27 of his personal funds to a group of poor women, who quickly started a sewing business that was able to generate enough income to help them pay back the loan, and more importantly, to rise above poverty. Thus the idea of the Grameen Bank was born. According to Martin & Osberg, "Grameen Bank sustained itself by charging interest on its loans and then recycling the capital to help other women." Having thus proven microcredit to be a sustainable method of combating global poverty, Yunus continues to inspire organizations worldwide to adopt the Grameen model to combat poverty in their own communities.



Like the Grameen model, there have been instances of various self-help groups in India, which foster various models of sustainability. The success of AMUL in at Anand in Gujarat eventually led to the creation of various co-operative societies across the country.

Example: Co-operatives; **Saras** in Rajasthan, **Mother Dairy** in Delhi and **Aarey** in Maharashtra





What is the difference between Entrepreneurship and Social Entrepreneurship?

The entrepreneur's final objective is wealth creation. However, for the social entrepreneur, wealth creation is simply a means to an end. The social entrepreneur participates in profit-seeking business ventures if only to use the profits generated to create valuable social programs for the whole community.

Case Study

Operation Flood – The man behind Mr. Verghese Kurien

This has been the story of a young engineer who was born in Calicut and was later known as the Father of the White Revolution and was honored with some of the most prestigious Government awards like Padma Vibhushan, Ramon Magsaysay and Krushi Ratna. He breathed his last on 9th December 2012, but he will always be remembered for his immense contribution to the farmers, to the Amul Brand and to the millions of consumers of dairy products.



The year was 1964 when our Prime Minister Mr. Lal Bahadur Shastri was invited to Anand to inaugurate the new cattle-feed plant of Amul. He was supposed to return back by end of the day but after reaching Anand he insisted to stay there to learn about the success of the co-operatives. He visited almost all the co-operatives with Dr. Kurien and was impressed with the process with which Amul was sourcing the milk from farmers and at the same time helping them to improve their economic condition. Later, he returned to Delhi and asked Dr. Kurien to replicate the Amul pattern across the country. The combined effort resulted in creation of the National Dairy Development Board (NDDB) in the year 1965. Dr. Kurien took charge of NDDB and began the herculean task of replicating the overall pattern of the working at Anand to other parts of the country. By this time the demand for milk was growing at a faster rate than the supply. India could have easily become the largest importer of milk like Sri Lanka if sufficient steps not been taken at that time by the Indian government and NDDB.

Money was the biggest problem faced by NDDB during that period and was a critical resource needed to revolutionize the milk industry. To deal with it, NDDB tried to pursue the World Bank for loans and other grants with no conditions at all. When the President of the World Bank came to India in 1969, Dr. Kurien told him – “Give me money and forget about it”. A few days later, World Bank approved the loan for NDDB without even a single condition. This help was part of an operation, later known as Operation Flood – which was done to replicate the Anand working pattern across India.

Operation Flood was subsequently implemented in India in three phases, adding around 0.1 million co-operatives and 5 million milk producers. Dr. Kurien also took several other measures such as developing milk powder, developing several varieties of dairy products, emphasizing on the health of cattle and development of vaccines etc. In 1973, he also set up GCMMF (Gujarat co-operative Milk Marketing Federation) – an individual marketing unit of Amul to sell the Amul as a brand in India as well as abroad. He also founded IRMA – Institute of Rural Management Anand in 1979, to pass on the gained knowledge to future generations and to place rural India on the map of India.

As a result of these combined efforts, Amul currently boasts of 15 million milk producers pouring their milk in 1, 44, 246 dairy co-operative societies across the country – a huge chain that has resulted in India's being the largest milk producing country today.



Why is there a growing need for Social Entrepreneurs?

In the current economic crisis, financial pressures are exacerbating existing social problems such as poverty and unemployment. According to J. Gregory Dees, social entrepreneurship is necessary to mitigate the financial repercussions among vulnerable. With pay cuts and job losses happening all over the world, the need of the hour are ideas, innovations, creative solutions and fresh perspectives that can cater to the changing market demands, emerging economies and a new world, economic order.

Defining the Characteristics of Social Entrepreneurs

Social entrepreneurs are:

- **Social Catalysts:** Visionaries who create fundamental, social changes by reforming social systems and creating sustainable improvements. According to J. Gregory Dees, “though they may act locally, their actions have the potential to stimulate global improvements in their chosen arenas, whether that is education, health care, economic development, the environment, the arts, or any other social field.”
- **Socially aware:** Social improvement, as opposed to the creation of profit, should be the ultimate goal of the social entrepreneurs. The success of their endeavours is measured by their social impact, not by the amount of profits generated.
- **Opportunity-seeking:** Relentless pursuit of their goals, seeing every obstacle as an opportunity to develop and fine-tune their business models.
- **Innovative:** Creative, willing to think outside the box and ready to apply ideas to new situations. They understand that not every innovation will be a success, and they see failures as learning opportunities even as they strive for success.
- **Resourceful:** Their visions are not limited by the resources that they have. Besides optimizing the use of existing resources, they actively expand their resource pool through collaboration with others.
- **Accountable:** Social entrepreneurs are accountable to their beneficiaries, and they often ask themselves, “Am I creating value for the people I am serving? Do I understand their needs?” This is because social entrepreneurs want to know how they are actually making an impact. They are also accountable to investors who want to know whether their contributions are indeed stimulating social improvements as promised by the social entrepreneurs.

Examples of some social entrepreneurs of India

- **Vinoba Bhave:** Founder and leader of the *Bhudaan Andolan* (Land Gift Movement), he caused the redistribution of more than 7,000,000 acres of land to aid India’s untouchables and landless.
- **Ela Bhatt:** Founded in 1972, Self-Employed Women’s Association (SEWA) is a rare trade union of poor, unorganised, self-employed women who work as vendors, hawkers and labourers.





- **Dr. Abraham M. George:** Founder of The George Foundation. It was established in January 1995 in Bangalore, India. Their mission is to work towards poverty eradication, promote environmental health, and strengthen democratic institutions and values in developing countries.



- **Dr. Verghese Kurien:** Founder of the AMUL Dairy Project.



- **Bunker Roy:** Founder of Barefoot College, which promotes rural development through innovative education programs.



Nand Kishore Chaudhary: Founder of Jaipur rugs, which promotes rural development through capacity building of rural people in carpet weaving.



- **Harish Hande:** Magsaysay Award Winner 2011. Founder of Selco India, a solar electric light company in 1995, which over the years has lit up over 1,20,000 households, to emerge as India's leading solar technology firm.



Case Study

Formation of SEWA (Self Employed Women's Association)



*In 1971, a few women handcart pullers approached **Ela Bhatt**, head of the women's wing of the textile labor association, in Ahmadabad, with problems like low and erratic wages, poor working conditions etc., Bhatt was aware that most of the women did petty jobs, working as garment makers, vegetable vendors, handcart pullers, milkmaids, hawkers etc., to supplement their family income. About 97% of the women lived in slums and 93% were illiterate. Bhatt soon realised that the women in the informal sector were unorganised, unprotected, economically weak, and had no bargaining power.*

In 1972, the garment workers formed their own co-operative. They were the first group to be organised under SEWA. By 1977, six other groups- used garment dealers, handcart pullers, vegetable vendors, junk-smiths, milk producers and miscellaneous workers- formed their own co-operatives.

The co-operatives were formed with the share capital provided by the women. Each co-operative was run by a democratically elected executive committee of workers. Initially,



SEWA provided the required capital to the co-operatives, but once they were established, they functioned on their own.

The members of the co-operatives shared their skills and expertise, developed new tools, designs and techniques and were engaged in joint marketing efforts. The members of SEWA has increased from 320 in 1973 to 6,94, 551 in 2002. Any self-employed woman over the age of 15 was eligible to become a member of SEWA by paying a nominal annual fee of Rs. 3/-. In 1975, the annual membership fee was increased to Rs. 5/-.

Since its inception in the early 1970s, SEWA has been working towards organizing and empowering poor, self-employed women in rural and urban areas in India. SEWA has helped them to get regular employment, easy access to credit, childcare, healthcare facilities

Case Study

Lijjat Papad

Everyone enjoys 'rags to riches' stories and everyone likes tales of stupendous success achieved through sheer determination. The story of **Shri Mahila Griha Udyog Lijjat Papad** is all that and much more.

Today, **Lijjat** is more than just a household name for 'papad'. Started with a modest loan of Rs 80, the cooperative now has annual sales exceeding Rs. 301 crore. What's more stunning than its stupendous success is its striking simplicity.



Shri Mahila Griha Udyog Lijjat Papad

Sticking to its core values for the past forty years, Lijjat has ensured that every process runs smoothly, members earn a comfortable profit, agents get their due share, consumers get the assurance of quality at a good price, and society benefits from its donations to various causes.

How has all this been possible? Its story shows how an organisation can infuse Gandhian simplicity in all its activities.



Lijjat was the brain child of seven Gujarati women from Bombay (now Mumbai). The women lived in Lohana Niwas, a group of five buildings in Girgaum. They wanted to start a venture to create a sustainable livelihood using the only skill they had i.e. cooking. Some of their names were **Jaswantiben Jamnadas Popat, Parvatiben Ramdas Thodani, Ujamben Narandas Kundalia, Banuben. N. Tanna, Laguben Amritlar Gokani, Jayaben V. Vithalani.**

The women borrowed Rs 80/- from **Chhaganlal Karamsi Parekh**, a member of the Servants of India Society and a social worker. They took over papad making venture which was running in loss owned by Laxmidas bhai, and bought the necessary ingredients and the basic infrastructure required to manufacture papads. On March 15, 1959, they gathered on the terrace of their building and started with the production of 4 packets of Papads. They started selling the papads to a known merchant in Bhuleshwar. From the beginning, the women had decided that they would not approach anyone for donations or help, even if the organization incurred losses.

Chaganlal Karamsi Parekh, popularly known as **Chaganbapa**, became their guide. Initially, the women were making two different qualities of papads, in order to sell the inferior one at a cheaper rate.



Chaganbapa advised them to make a standard papad and asked them never to compromise on quality. He emphasized the importance of running it as a business enterprise and maintaining proper account.

Lijjat expanded as a cooperative system. Initially, even younger girls could join, but later eighteen was fixed as the minimum age of entry. Within three months there were about 25 women making papads. Soon the women bought some equipment for the business, like utensils, cupboards, stoves, etc. In the first year, the organization's annual sales were Rs. 6196/-. The broken papads were distributed among neighbours.

During the first year, the women had to stop production for four months during the rainy season as the rains would prevent the drying of the papads. The next year, they solved the problem by buying a cot and a stove. The papads were kept on the cot and the stove below the cot so that the process of drying could take place in spite of the rains.

The group got considerable publicity through word of mouth and articles in vernacular newspapers. This publicity helped in increasing its membership. By the second year of its formation, 100 to 150 women had joined the group, and by the end of the third year it had more than 300 members. The members were called as 'Ben/Sister'. By this time, the terrace of seven founders could no longer accommodate the members and the ingredients, so the kneaded flour was distributed among the members who would take it to their homes and make papads.

Every morning a group of women go to the Lijjat branch to knead dough, which is then collected by other women who roll it into papads. When these women come to collect the dough, they also hand in the previous day's production, which is tested for quality. If the quality is not maintained then the woman would be served a warning and they might be removed from the organisation at a later stage.

They have accountants in every branch and every centre has to maintain daily accounts. Profit (or loss, if any) is shared among all the members of that branch.

They have a committee of 21, that decides how the profits are to be distributed. We generally buy gold coins - 5gm or 10 gm, depending on the profit. Everyone gets an equal share of profit, irrespective of who does what work, irrespective of seniority or responsibility.

Even a woman who has recently joined gets the same share as others who have been with the organisation longer. Each branch calculates its profit and divides it equally among all its members.

Mumbai has 12,000 members, the rest of Maharashtra has 22,000, and Gujarat has between 5,000 to 7,000 members.

Exports

Exports alone account for Rs 10 crores. They are not directly involved in exporting, but recognised professional merchant exporters (who also export other food products), place an export order.

Only on receiving the full advance through a cheque, they begin production. Because all exports are done from Mumbai, the supply also comes from there. Export production is of the same quality as daily production.



From the above two case studies, it is evident that a social entrepreneur can assess a social problem and find a solution to eradicate poverty among the masses and thus improve their standard of living.

Concept of Risk Taking

Business risk means the possibility of some unfavourable occurrence. According to B. O. Wheeler, “Risk is the chance of loss. It is the possibility of some adverse occurrence”. There is always a possibility of loss in business even though the businessman exposed to it may not be aware of it.

Types of Risk Taking:

Business risks are of a diverse nature and arise due to innumerable factors. These risks can either be insurable or non-insurable. Insurable risks are those which can be covered through different types of insurance policies. The probability of an insurable risk can be determined, in other words such risks can be forecasted.

For example: (i) Insurable Risks are related to life and property against fire, theft, riots etc.

(ii) **Non-insurable** risks are those whose probability cannot be determined and which cannot be insured against.

For example: Fluctuations in price and demand.

These risks may be broadly classified into two types, depending upon their place of origin.

Internal Risks

- Internal Risks are those risks which arise from the events taking place within the business enterprise. Such risks arise during the ordinary course of a business. These risks can be forecasted and the probability of their occurrence can be determined. Hence, they can be controlled by the entrepreneur to an appreciable extent.

The various internal factors giving rise to such risks are:-

- **Human factors** are an important cause. They may result from strikes and lock-outs by trade unions; negligence and dishonesty of an employee; accidents or deaths in the industry; incompetence of the manager or other important people in the organisation, etc. Also, failure of suppliers to supply the materials or goods on time or default in payment by debtors may adversely affect the business enterprise.
- **Technological factors** are the unforeseen changes in the techniques of production or distribution. They may result in technological obsolescence and other business risks. For example, if there is some technological advancement which results in products of higher quality, then a firm which is using the traditional technique of production might face the risk of losing the market for its inferior quality product.

For example: The packaging industry has increased the shelf-life of various products like chips, milk etc.





- **Physical factors** are the factors which result in loss or damage to the property of the firm. They include the failure of machinery and equipment used in business; fire or theft in the industry; damages in transit of goods, etc. They also include losses to the firm arising from the compensation paid by the firm to the third parties on account of intentional or unintentional damages caused to them. External risks arise due to the events occurring outside the business organisation. Such events are generally beyond the control of an entrepreneur. Hence, the resulting risks cannot be forecasted and the probability of their occurrence cannot be determined with accuracy.

External Risks

The various external factors which may give rise to such risks:

- **Economic factors** are the most important causes of external risks. They result from the changes in the prevailing market conditions. They may be in the form of changes in demand for the product, price fluctuations, changes in tastes and preferences of the consumers and changes in income, output or trade cycles. The conditions like increased competition for the product, inflationary tendency in the economy, rising unemployment as well as the fluctuations in world economy may also adversely affect the business enterprise. Such risks which are caused by changes in the economy are known as 'dynamic risks'. These risks are generally less predictable because they do not appear at regular intervals. Also, such risks may not necessarily result in losses to the firm because they may also contain an element of gain for the firm. For instance, due to market fluctuations, a well-known product of a firm may either lose its demand or may occupy a larger market share.

For example: Black and White TV to Flat screen, high definition TV.



Black & White TV



High Definition TV

- **Natural factors** are the unforeseen natural calamities over which an entrepreneur has very little or no control. They result from events like earthquake, flood, famine, cyclone, lightening, tornado, etc. Such events may cause loss of life and property to the firm or they may spoil its goods. For example, the Gujarat earthquake caused irreparable damage not only to the business enterprises, but also adversely affected the whole economy of the State.

For example: The Tsunami.

- **Political factors** have an important influence on the functioning of a business, both in the long and short term. They result from political changes in a country like fall or change in the Government, communal violence or riots in the country, civil war as well as hostilities with the neighbouring countries. Besides, changes in Government policies and regulations may also affect the profitability and position of an enterprise. For instance, changes in industrial



policy and trade policy annual announcement of the budget amendments to various legislations, etc. may enhance or reduce the profits of a business enterprise.

For example: War tension between any two countries. In the year 1977 with the change in the political power in the country changed the policy for MNC'S in the country.

- **Change in taste and preference:** Tastes change with the change in the dynamics of the world.

For example: Earlier there was a preference to eat most of the time at home and fast food was unknown. But nowadays, there has been an upsurge of fast food outlets all over the country.

Thus, business risk takes a variety of forms. In order to face such risks successfully, every businessman should understand the nature and causes of these risks as well as the various measures which must be taken in order to minimise them. Risks are present everywhere in our society; an entrepreneur should not be disappointed looking into all these risks, like a phoenix bird, which rises from its own ashes, every entrepreneur also is sure to come out successfully facing all these risks.

Role of technology and social media in creating new forms of business

Over the past 25 years, the digital revolution has changed the way we work and play almost beyond recognition. Yet the smart, interconnected world we live in now is still neither as smart, nor as connected, as we would like it to be. Consumers want more powerful devices and applications, while businesses seek more cost-effective technology to cope with increasingly complex challenges. Satisfying these demands will lead to an explosive growth in data and analytics, new competition in almost every field, disruption and realignment of many industries.



Emerging markets will create plenty of opportunities related to smart technology, and they will not be limited to for-profit enterprises. In Kenya, for example, mobile phones are being used to collect data and report on disease-specific issues from more than 175 health centres serving over 1 million people. This technology has reduced the cost of the country's health information system by 25% and cut the time needed to report the information from four weeks to one week.

Information Collection:

In this competitive world, in order to attract a customer, the entrepreneurs have to know the customer in detail so that they can assure that they are loyal to the company. Information which is collected, for example- age, regularity of customer to the shop, preference of purchase – all these factors enable a company to understand the taste and preference of the customer so that they can serve them better.

Businesses will compete on analytics to differentiate themselves. The growing number of embedded sensors collecting information about the world, and the rise of social networks that store the data people share, will generate immense quantities of information. IDC, a market



research firm, suggests that the amount of digital information created each year will increase to 35 trillion gigabytes by 2020, requiring 44 times more data storage than in 2009.

For example, telemetric applications, similar to GPS (global positioning systems), will allow organizations to send, receive and store information via telecommunications devices while controlling remote objects. Although commonly associated with the automotive industry, telemetric applications are being developed for use in medical informatics, health care and other fields.

Business Intelligence:

Business intelligence is the ability of an organization to collect, maintain, and organize data.

Example: Sales data during an off season discount.

This data produces large amounts of information that can help develop new opportunities. Identifying these opportunities, and implementing an effective strategy, can provide a competitive market advantage and long-term stability.

The real payback comes when business intelligence is applied to enable companies to make better strategic decisions. Business intelligence, which enables organizations to gather quantifiable data on each area of the organization and analyse it in a way that yields information they can act on, thereby helping them enhance decision making, improve performance, mitigate risk and sometimes even create new business models, is growing in importance.

Smart Mobility:

Those devices which are mobile help in the growth of business. Smart mobility will change the way people interact. Increasingly, smart devices – portable tools that connect to the internet – have become a part of our lives. In the last quarter of 2010, sales of smart phones outpaced those of PCs for the first time, according to data from IDC. By 2014, more smart devices could be used to access the internet than traditional computers. The move to an increasingly mobile world will create new players and new opportunities for a variety of industries. We expect that new emerging market companies will be significant competitors, growing rapidly in part because a lack of legacy systems will enable them to profit more quickly from new technology as it becomes available.



For example: Smartphone's (with internet, high definition camera).

Cloud computing:

The origin of the term *cloud computing* is obscure, but it appears to derive from the practice of using drawings of stylized clouds to denote networks in diagrams of computing and communications systems. The word *cloud* is used as a metaphor for the internet, based on the standardized use of a cloud-like shape to denote a network.

Earlier when large-scale computer became available in academia and corporations; it was costly to buy a mainframe. As computers became more prevalent, scientists and technologists explored ways to make large-scale computing power available to more users through time



sharing, experimenting with algorithms to provide the optimal use of the infrastructure, platform and applications with prioritized access to the CPU and efficiency for the end users. So effectively cloud computing helps an organisation to upload all its data on to a cloud and then they can use it remotely wherever it is required.

By 2016, Gartner- a consultancy firm, expects all Forbes' Global 2000 companies to use public cloud services, transforming much of the current IT hardware, software and database markets into infinitely flexible utilities. When cloud computing becomes widespread, it will transform businesses and business models, potentially reducing both initial and recurring costs for IT buyers, increasing their flexibility and lowering their risks.

Despite concerns related to data security, privacy and business continuity, its value proposition makes the success of cloud computing inevitable. Over time, cloud-based services will grow increasingly sophisticated and evolve into full-scale business processes as a service.

For example: In case of a phone and a laptop of Apple Inc., whatever photo, is clicked, it automatically gets updated on to the laptop through cloud computing.

The power of Social Media

Google, Facebook, Twitter, smart phones, tablets and e-readers – technologies that originated in the consumer space, are now reshaping the way companies communicate and collaborate with employees, partners and customers. Through the new possibilities for “social listening,” businesses are able to better understand what their customers and employees need and want.

More change can be expected when the generation that has grown up with new technologies and instant information gratification joins the workforce. These changes will definitely lead to the creation of new forms of business enterprises which will surely change the way business will be conducted in the future scenario.

Barriers to Entrepreneurship

The factors which inhibit the growth of entrepreneurship may be classified under two categories.

Environmental Barriers

- (i) Economic
- (ii) Social
- (iii) Cultural
- (iv) Political

Personal Barriers

- (i) Motivational
- (ii) Perceptual

Environmental:

The Development of entrepreneurship is often influenced by environmental factors like economic, social, cultural and political. These conditions or factors may have both positive and negative influences on the emergence and growth of entrepreneurship.



Economic:

The factors which are responsible for economic development such as land, labour, capital, material, market etc., are equally responsible for the development of entrepreneurship. Thus, an environment, where all these factors are available to the entrepreneurs, will naturally support and promote entrepreneurship. On the other hand, if any of these factors are not available or of inadequate quality and quantity, they can become barriers to entrepreneurship.

For example: Unavailability of cash deters an entrepreneur from starting a new venture.

Social:

Sociological factors such as caste structure, mobility of labour, customer needs, cultural heritage, respect for senior citizens, values etc. might have a far reaching impact on business. In India, attitudes have changed with respect to food and clothing as a result of industrialisation, employment of women in factories and offices, and the increased level of education. This has resulted in the growth of food processing and garment manufacturing units thus the emergence and growth of a new class of entrepreneurs.

For example: Readymade shirts, instant food, vending machines for tea and eatables.

Cultural:

Every society has its own cultural values, beliefs and norms. If the culture of a society is conducive to creativity, risk-taking and adventurous spirit, in such a cultural milieu entrepreneurship will get encouragement.

For example: An entrepreneur will have to keep in mind the cultural reference of the region that he/she is going to cater to, this will enable him/her to get a quicker acceptance in that region.

Political:

It provides the legal framework within which business is to function. The viability of business depends upon the ability with which it can meet the challenges arising out of the political environment. This environment is influenced by political organisations, stability, government's intervention in business, constitutional provisions etc.

For example: War tension between two countries can also stop the trade between these countries.

Personal:

In a given society, a few people may take up the career of entrepreneurship. Even among the societies which are considered entrepreneurially progressive, only a selected few ventures to set-up their own enterprises.

Perceptual:

There are certain perceptual barriers that can hamper the progress of an entrepreneur. Lack of a clear vision and misunderstanding of a situation, can result in a faulty perception. Having pre-conceived notions and prejudices against a particular business activity will leave limited choices.



For example: One should overcome the barriers of selecting a business venture according to one's gender. There is hardly a business left where both the genders have not explored and achieved equal success.

Motivational:

Sustained motivation is an essential input in any entrepreneurial venture. Lack of motivation is a strong barrier to entrepreneurship. Many entrepreneurs start with enthusiasm, but when they face some difficulties in the execution of their plans, they lose motivation.

For example: Failure of a venture.

Business Incubation:

These are programs designed to support the successful development of entrepreneurial companies through an array of business support resources and services, developed and orchestrated by incubator management and offered both in the incubator and through its network of contacts. Incubators vary in the way they deliver their services, in their organizational structure, and in the types of clients they serve.

It is an organization designed to accelerate the growth and success of entrepreneurial companies through an array of business support resources and services like providing physical space, capital, coaching, common services, and networking connections.

How do incubators help start-ups get funding?

Incubators help resident companies secure capital in a number of ways:

- Connecting companies with angel investors (high-net-worth individual investors).
- Working with companies to perfect venture capital presentations and connecting them to venture capitalists.
- Assisting companies in applying for loans.
- Assisting companies in accessing government agency (example NZTE, Technology NZ) business assistance grant programmes.

Help/support provided for entrepreneurs by the Government

Various government schemes have been implemented for entrepreneurs by the government.

1. Schemes implemented by the Ministry of MSME (Micro, Small and Medium Enterprises)
2. SIDBI (Small Industries Development Bank of India) Micro Finance programme
3. Memorandum of understanding (MOUs) with foreign countries
4. MSME National Award Scheme
5. NSIC Schemes (National Small Industries Corporation)
6. SIDBI Schemes
7. Tax Holiday Scheme
8. Composite Loan Scheme
9. Industrial Estate Scheme



10. Factoring Services
11. Small Industry Cluster Development Programme
12. National Equity Fund Scheme

There are various sector specific schemes also:

1. Schemes implemented through KVIC (Khadi and Village Industries Commission)
2. Schemes implemented through Coir board
3. Schemes for priority sector
4. Animal Husbandry Schemes
5. Dairy Development Schemes
6. Fisheries Development Schemes
7. Agriculture Development Schemes
8. Tea Board Schemes
9. Tourism Industry Schemes
10. Scientific and Engineering Research Schemes

Institutions involved in Entrepreneurship Development Program (EDP):

1. National Institute for Entrepreneurship and Small Business Development (NIESBUD)
2. Indian Institute for Entrepreneurship
3. National Institute for Micro, Small and Medium Enterprises (NIMSME)
4. National Small Industries Corporation (NSIC)
5. Rural Entrepreneurship Development Institute (REDI)
6. Training and Development Centre (TDC)
7. Centre for Entrepreneurship Development (CEI)
8. Small Industries Service Institutions (SISI)
9. Small Industries Development Organisation (SIDO)
10. Entrepreneurship Development Institution of India (EDII)
11. National Alliances of Young Entrepreneur (NAYE)

SUMMARY

Entrepreneurs as problem solvers:

*Entrepreneurial actions are efforts to solve problems for others. Therefore, entrepreneurs are **Problem Solvers**. When one solves a problem, new value is created. In the business world, problem solvers take risk but often create value by solving a customer or market problem--key to creating a profitable enterprise.*

Some innovations leading to successful ventures:

- **Penicillin** - Inventor: Sir Alexander Fleming, a scientist
- **The Pacemaker**- Inventor: John Hopps, an electrical engineer



- **Potato Chips**-Created by: George Crum, chef
- **Microwave ovens**-Inventor: Percy Spencer, an engineer with the Raytheon Corporation
- **Ink-Jet printers**-Inventor: A Canon engineer
- **X-Rays**- Inventor: Wilhem Roentgen, a physicist

Social Entrepreneurship:

According to J. Gregory Dees, social entrepreneurship is that which “combines the passion of a social mission with an image of business-like discipline, innovation, and determination”.

Social Entrepreneur:

According to Martin and Osberg, “the Social Entrepreneur aims for value in the form of large-scale, transformational benefit that accrues either to a significant segment of society or to society at large.”

Need for social entrepreneurship. To overcome:

Economic and financial crises

Social problems such as poverty and unemployment

Characteristics of Social Entrepreneurs

- Social catalysts
- Socially aware
- Opportunity-seeking
- Innovative
- Resourceful
- Accountable

Concept of risk taking:

Business risk means possibility of some unfavourable occurrence.

Types of risk taking:

Internal- Human, Technological, Physical

External- Economic, Natural, Political, Change in tastes and Preferences of customer

Role of technology in creating new forms of business

Information Collection:

Information which is collected, for example- age, regularity of customer to the shop, preference of purchase – all these factors enable a company to understand the taste and preference of the customer so that they can serve them better.

Business Intelligence:

It is the ability of an organization to collect, maintain, and organize data

Example: Sales data during an off season discount.

**Smart Mobility:**

Those devices which are mobile and help in growth of business.

Cloud computing

Cloud computing helps an organisation to upload all its data on to a cloud and then they can use it remotely wherever it is required.

Barriers to Entrepreneurship**Environmental**

- (i) Economic
- (ii) Social
- (iii) Cultural
- (iv) Political

Personal

- (i) Motivational
- (ii) Perceptual

Business incubators are programs designed to support the successful development of entrepreneurial companies through an array of business support resources and services.

Q.1. Answer each of these questions in about fifteen words:

- (i) Name any two institutions involved in Entrepreneurship Development program.
- (ii) Who is a social entrepreneur?
- (iii) What are insurable risks?
- (iv) What are non-insurable risks?
- (v) What is economic barrier?
- (vi) Give an example of a social entrepreneur

Q.2. Answer each of these questions in about fifty words:

- (i) What is business incubation?
- (ii) Explain business intelligence.
- (iii) List two examples of incubation centres in India
- (iv) Write about any two innovations which led to entrepreneurial ventures.
- (v) Differentiate between social entrepreneurship and entrepreneurship

Q.3. Answer each of these questions in about 75 words:

- (i) What is cloud computing?
- (ii) How did KFC begin its operations?
- (iii) Explain the various external factors which lead to business risk
- (iv) Enumerate three ways as to how incubators help start-ups get funding?

Q.4. Answer each of these questions in about 150 words:

- (i) Explain the various internal factors which lead to business risk
- (ii) Explain in detail the personal barriers.



(iii) Explain

- a) Smart Mobility,
- b) Information Collection as new business forms

Q.5. Answer each of these questions in about 250 words:

- (i) Enumerate the characteristics of social entrepreneurs.
- (ii) Explain in detail three new forms of business which is created because of technological changes.
- (iii) Explain 'barriers to entrepreneurship'.

Q.6. HOTS: (High Order Thinking)

Application based exercise:

Explain the success story of Lijjat Papad.

Q.7. Activities:

1. Starting a business takes a lot of research an entrepreneur can find information on almost any subject very rapidly by using the internet's World Wide Web. An entrepreneur must communicate with many people, suppliers, distributors and a very quick and inexpensive way is through the internet. In groups debate on the role of internet and social media for an entrepreneur from customer's point of view.
2. 'Innovation' is the word that differentiates an entrepreneur from a businessman. Tata Nano is one such innovative product. Collect articles from magazine newspaper etc. on the latest innovations bought out by a few entrepreneurs and prepare a collage or a power point presentation on these innovations.
3. A social entrepreneur most unique ability is to see a problem in the world and have the passion, interest and the belief that he or she can help solve it. Sometimes thinking that we can change the world feels impossible, but a small act of kindness add up to big changes. Make a video or a report about 10 entrepreneurs who made a change to some one's life through their efforts.
4. The barriers are not the same for all individuals in the society. Interview an entrepreneur in your locality about the barriers he/she faced in starting and developing his business, how he/she overcomes these barriers. Prepare a report and discuss it in class.
5. Entrepreneurs are the risk takers. In groups find out local entrepreneurs and list the risks they have taken while setting up their venture. Now after collecting enough information do the research from your findings, prepare a report and draw a conclusion based on the question: "Are Entrepreneurs gamblers, or calculative risk takers?"