BLOCK 5
SECTORAL DEVELOPMENT-II: INDUSTRIAL AND SERVICES

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In this block, you will learn about various Industrial policy resolutions, Industrial policy statement, Various indicators of industrial growth, phases of growth trends in Indian industry, Roles and contribution of public and private sector in the economy, difference in public & private sector, Public- Private partnership (PPP) models, forms, applications and Challenges, Micro, Small and Medium Enterprises (MSME) meaning, opportunities and challenges and their present status in the country, Structure of IT industry and telecommunications industry, Present status of ICT sector in the economy. The block has 4 units.

Unit-14 deals with'**Industrial Policy**'. The unit begins with the introduction of industrial policy resolutions. The understanding of industrial policy resolution, 1948, 1956, 1977, 1980 and 1991 drafted by the government and amendments made therein are provided. Indicators of industrial growth and their significance are than highlighted. Growth trends in Indian industry are discussed in major four phases. Factors that have played a defining role in shaping industrial policies after independence were given in the last.

Unit-15 deals with '**Public and Private Sector**'. The unit begins with the meaning of public and private sector. Respective roles and contribution of public and private sector in the economy are described and a comparative view of public and private sector is given. Definition of Public- private partnership is provided along with the different models of PPP and their application. In the end, PPP model in India and its various forms and challenges are outlined.

Unit-16 deals with '**Micro, Small and Medium Enterprises (MSME)**'. The unit begins with the meaning and definition of MSMEs. Features and opportunities of MSMEs are discussed. Various information technology (IT)initiatives are given. Credit support initiatives are explained. Highlights of entrepreneurship promotion and development programmes are then presented. Roles, challenges in growth and development of MSMEs sector in India are explained thereafter. The chapter ended with the details of the distribution of MSMEs in India.

Unit-17 deals with '**Service Sector (ICT & Communication)**'. The unit begins with the brief introduction of IT industry. A list of facilitators of growth of software industry in India is then provided. Growth drivers of telecommunications industry are discussed. Role of ICT in economic development and the challenges faced by them are briefly discussed. A list of ICT products is given along with the government support for ICT product development.

UNIT 14 INDUSTRIAL POLICY

Structure

14.0 OBJECTIVES

After going through this unit, you will be able to:

- Explain the meaning of industrial policy;
- Analyse industrial policies drafted by the government at different points of time and amendments made therein;
- Identify indicators of industrial growth in India and their significance; and
- Identify the factors that have played a defining role in shaping industrial policies after independence.

14.1 INTRODUCTION

Industrial revolution, that began in Europe and later spread to the entire world, is one of the most notable achievements in the history of mankind. As industrial revolution resulted into mass scale production in short time.The industrialized states promoted exports of manufactured goods through fiscal incentives and policy support. The competitive industrialization in different parts of Europe first and later in the other parts of the world, forced states/governments to encourage innovations.The science and technology were promoted, educational institutes were set up. These developments facilitated them to supply skilled human capital and build infrastructure in the country. Industrial revolution helped them amass huge wealth and achieve technological advancements and eventually benefitted them in becoming the industrially advanced economies or First World nations in the world. In this Unit, you will learn the industrial Policy resolution, new industrial policy and indicators of industrial growth in India.

14.2 INDUSTRIAL POLICY RESOLUTIONS

In the colonial period, Indian raw materials exported largely to England, processed in mills in factories there, and sold back to India as finished goods. When the Britishers left, India inherited industries that was inefficient and was

not producing any exportable surplus. After independence, the Government felt an urgent need to change the very nature and type of industries in the country. The first Prime Minister Jawaharlal Nehru too realized the fundamental problem of industrial sector in India and held that industrialization was the key to India's success. Nehru also believed that India should be economically self-sufficient, although his approach to self-sufficiency led through large-scale industrialization rather than village industries. In India, there has been a consensus for long on the role of government in providing infrastructure and maintaining stable macroeconomic policies. It is due to policy initiative during early years of planning- particularly the second and third five year plans- that India now has a strong and diversified industrial base and is a major industrial nation of the world. However, manufacturing capabilities of China, South Korea and Thailand are well developed.

Industrial Policy is defined as the strategic effort by the state to encourage economic transformation, i.e. the shift from lower to higher productivity activities. Industrial policy refers to any type of selective government intervention or policy that attempts to alter the structure of production in favour of sectors that are expected to offer better prospects for economic growth. So, Industrial Policy is the set of standards and measures set by the Government to evaluate the progress of the manufacturing sector that ultimately enhances economic growth and development of the country. It is a vision document that provides a direction to the government to achieve certain predetermined goals in a stipulated period.

An industrial policy has its pre-decided aims and objective that are to be achieved in the given time frame. Following can be some of the common objectives of an Industrial Policy;

- To maintain steady growth in productivity
- To create more employment opportunities
- Utilize the available human resources effectively
- To accelerate GDP growth rate

14.2.1 Industrial Policy Resolution, 1948

The Government of India set out in their Resolution dated 6 April, 1948 the policy which they proposed to pursue in the industrial field. The Resolution emphasised the importance to the economy of securing a continuous increase in production and its equitable distribution.It pointed out that the State must play progressively active role in the development of Industries. It laid down that arms and ammunition, atomic energy and railway transport would be the monopoly of the Central Government.The State would be exclusively responsible for the establishment of new undertakings in six basic industries. If the State realises the necessity to secure the cooperation of private enterprise in the national interest, the state may do so. The rest of the industrial field was left open to private enterprise though it was made clear that the State would also progressively participate in this field. Some of the important take away points this resolution were as follows;

- Mixed Economy: The Industrial Policy Resolution, 1948 was first major policy of independent India which was launched to lay the foundation of a mixed economy.In mixed economy both private and public enterprises would march hand in hand to accelerate the pace of industrial development. It means there would be co-existence of public sector and private sector. The decision regarding price determination, resource allocation and distribution in public sector shall be taken by the government. Tata Steel, Hero Motors

and Hindustan Unilever fall under the domain of public sector.However, the market shall take all economic decisions in case of the private sector. Hinduja, Tata and Birla are examples of the private sector.

- Priority to Small scale and cottage industries: Small scale and cottage industries were given the importance due to their wide spread, labour intensive nature and low capital and low skill requirements.
- Restrictions on foreign investments: The government restricted foreign investments to protect domestic industries from global competition.
- Industries were divided into 4 categories
- State monopolies:Exclusive monopoly of central government in arms and ammunitions, production of atomic energy and management of railways. According to Cambridge Dictionary, "State monopoly is a situation wherein an organization owned by a government supplies of all particular product or service, with no competitors". For example, LIC, Air India and BSNL used to be state monopoly in India.
- New undertaking undertaken only by state (coal, iron and steel, aircraft manufacturing, ship building, telegraph, telephone etc).
- Industries to be regulated by the government(Industries of basic importance): The entire secondary sector was by and large regulated by the government.
- Remaining sectors were open to private enterprise, individuals and cooperatives. Although, there was not much important left behind for the private sector to perform outstandingly well.

During the early years after independence, the Government adopted a policy that favoured industrialization through public sector intervention and giving limited space to the private sector. The reason was the private sector had neither enough resources not willingness to undertaken projects of nation building. The private sector unlike the Government had no capacity to mobilize funds for megaprojects from anywhere. India needed to develop heavy and basic industries like iron and steel, power generation, heavy engineering, to name a few.The Industrial Policy Resolution, 1948 – historically important policy document that declared India as a Mixed economy- was a step towards right direction to develop industries through state participation. It showed that the Indian Government had a socialist bent. It provided some ownership rights of assets but at the same time, the private sector did get some space to participate in the process of industrialization between 1948 and 1956.

14.2.2 Industrial Policy Resolution, 1956

The Industrial Policy Resolution of 1948 was followed by the Industrial Policy Resolution of 1956.The objective was to accelerate the rate of economic growth and the speeding up of industrialisation as a means of achieving a socialist pattern of society. It was regarded as the "Economic Constitution of India" or "The Bible of State Capitalism". In 1956, capital was scarce and the base of entrepreneurship not strong enough. Hence, the 1956 Industrial Policy Resolution gave primacy to the role of the State to assume a predominant and direct responsibility for industrial development. The 1956 Policy emphasised the need to expand the public sector, to build up a large and growing cooperative sector and to encourage the separation of ownership and management in private industries and, above all, prevent the rise of private monopolies.

The Industrial Policy Resolution - 1956 was shaped by the Mahalanobis

Model of growth. This Model suggested for a shift in the pattern of industrial investment towards building up a domestic consumption goods sector.This required investment in building a capacity in the production of capital goods or heavy industries leading to an economy with a long term higher growth path. It provided the basic framework for the government's policy in regard to industries till June 1991.

The Industrial Policy Resolution - 1956 classified industries into three categories;

a) **Schedule A:** The first category comprised 17 industries (included in Schedule A of the Resolution). These industries were exclusively under the domain of the Government. These included inter alia, railways, air transport, arms and ammunition, iron and steel and atomic energy.

b) **Schedule B:** The second category comprised 12 industries (included in Schedule B of the Resolution). These industries were envisaged to be progressively State owned but private sector was expected to supplement the efforts of the State.

c) **Third Category:** The third category contained all the remaining industries and it was expected that private sector would initiate development of these industries. The industries would remain open for the State as well.

The Resolution widened the scope of the public sector, rather established the dominance of the public sector in most of the key areas of the economy. Some of the public sector enterprises grew too big in size. It was envisaged that the State would facilitate and encourage development of these industries in the private sector, in accordance with the programmes formulated under the Five Year Plans. The appropriate fiscal measures and adequate infrastructure would be insured. Despite the demarcation of industries into separate categories, the Resolution was flexible enough to allow the required adjustments and modifications in the national interest.

Following the Theory of Infant Industry Argument, the domestic industry was protected from global competition, through import quota, import licensing and other import trade barriers. However, the IPR 1956 came in for sharp criticism from the private sector since this Resolution reduced the scope for the expansion of the private sector significantly.The IPR, 1956 was a landmark policy statement and it formed a basis of subsequent policy announcements.

14.2.3 Industrial Policy Statement, 1977

The Industrial Policy Statement of 1977 laid emphasis on decentralisation and on the role of small-scale, tiny and cottage industries.This policy was an extension of the 1956 policy, but it focussed on prioritization of small scale industries and home based units to decentralize economic power in India. Its important focus was on;

- Employment to the poor and reduction in the concentration of wealth.
- Decentralisation of industries
- Priority to small scale Industries
- Created a new unit called "Tiny Unit"
- Imposed restrictions on Multinational Companies (MNC)

This Statement emphasized decentralization of industrial sector with increased role for small scale, tiny and cottage industries. It also provided for close interaction between industrial and agricultural sectors. Highest priority was accorded to power

generation and transmission. It expanded the list of items reserved for exclusive production in the small scale sector from 180 to more than 500. For the first time, within the small scale sector, a tiny unit was created. The tiny unit is defined as a unit with investment in machinery and equipment up to Rs0.1million and situated in towns or villages with a population of less than 50,000 (as per 1971 census). Basic goods, capital goods, high technology industries important for development of small scale and agriculture sectors were clearly delineated for large scale sector. It was also stated that foreign companies that diluted their foreign equity up to 40 per cent under Foreign Exchange Regulation Act (FERA) 1973 were to be treated at par with the Indian companies. Fully owned foreign companies were allowed only in highly export oriented sectors or sophisticated technology areas. For all approved foreign investments, companies were completely free to repatriate capital and remit profits, dividends, royalties, etc. Further, in order to ensure balanced regional development, it was decided not to issue fresh licenses for setting up new industrial units within certain limits of large metropolitan cities (more than 1 million population) and urban areas (more than 0.5 million population).

14.2.4 Industrial Policy Statement, 1980

The industrial Policy Statement of 1980 placed accent on promotion of competition in the domestic market, technological upgradation and modernization of industries. Some of the socio-economic objectives spelt out in the Statement were as follows;

i) optimum utilisation of installed capacity,

ii) higher productivity,

iii) higher employment levels,

iv) removal of regional disparities,

v) strengthening of agricultural base,

vi) promotion of export oriented industries and

vii) consumer protection against high prices and poor quality.

Policy measures were announced to revive the efficiency of public sector undertakings (PSUs) by developing the management cadres in functional fields viz., operations, finance, marketing and information system. An automatic expansion of capacity up to five per cent per annum was allowed, particularly in the core sector and in industries with long-term export potential. Special incentives were granted to industrial units which were engaged in industrial processes and technologies aiming at optimum utilization of energy and the exploitation of alternative sources of energy. In order to boost the development of small scale industries, the investment limit was raised to Rs.2 million in small scale units and Rs.2.5 million in ancillary units. In the case of tiny units, investment limit was raised to Rs.0.2 million.

Self-assessment Exercise A

1) What are the objectives of industrial policy?

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2) Write three important focus of industrial policy statement, 1977.

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3) Write full forms of the following terms.

FERA .....

MRTP.....

MNC.....

IPR .....

4) Write three objectives of Industrial Policy Statement, 1980.

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14.3 NEW INDUSTRIAL POLICY, 1991

In India, regulatory mechanisms were enforced in various ways. For instance, industrial licensing under which every entrepreneur had to get permission from government officials to start a firm, close a firm or decide the amount of goods that could be produced. Private sector was not allowed in many industries. Some goods could be produced only in small-scale industries, and controls on price fixation and distribution of selected industrial products. During late 1980s and early 1990s, India faced high level of debt, double digit inflation, slow GDP growth and Balance of Payment (BOP) crisis. The Government's financial health was unsound and it was on the verse of collapse. The reasons put forth by experts included high tax rates, industrial licensing, MRTP act and FERA, among others.

International Monetary Fund (IMF) suggested us to adopt economic reforms, famously called New Industrial Policy, 1991 or LPG reforms, in a major way. Government decided to take a series of initiatives in respect of the policies relating to the following areas. Industrial Licensing, Foreign Investment, Foreign Technology Agreements, Public Sector Policy, MRTP Act. The reform policies introduced in and after 1991 removed many of these restrictions. Industrial licensing was abolished for almost all but product categories; alcohol, cigarettes, hazardous chemicals, industrial explosives, electronics, aerospace and drugs and pharmaceuticals. The only industries which are now reserved for the public sector are a part of atomic energy generation and some core activities in railway transport. Many goods produced by small-scale industries have now been de-reserved. In most industries, the market has been allowed to determine the prices. Therefore, the New Industrial Policy, 1991 had the following important features;

i. Creation of a positive business environment by simplifying procedures, reducing documentation and offering fiscal incentives.

ii. Allowing foreign investment by lowering controls and regulations.

iii. Privatization of public sector enterprises, particularly sick units.

iv. Exit policy for the sick units in private sector for a smooth exit without affecting welfare of labour.

v. Financial sector reforms to deregulate interest rates, improve credit availability and to create a conducive environment for banking and finance sector.

vi. Reducing tariff and non-tariff barriers on imports and simplifying procedure for import of goods and services.

vii. Industry friendly approach of the government to promote business.

viii. Devaluation of Indian rupee by 21 per cent and convertibility of Indian rupee on current account.

The New Industrial Policy, 1991 had the main objective of providing facilities to market forces and to increase efficiency.

L – Liberalization: It refers to reduction in government control. Different types of government regulations and controls from businesses or economic activates in the country are reduced.The government imposes much less restrictions than before and is therefore said to be more liberal. Industrial licensing was abolished except for 18 industries. MRTP Act was introduced to check monopolies. The MRTP Act was relaxed in 1991. MRTP Act was replaced by the Competition Act 2002 that promoted competition and encouraged industries expand their businesses, incorporate mergers and acquisitions and adopt best practices in business.

P – Privatization: It refers to increase in the role and scope of Private sector. De-reservation of the sectors that were originally reserved for the government. This encouraged the private sector to participate in different economic activities for better management, efficient use of resources and become competitive.

G – Globalisation: It refers to integration of the Indian economy with the world economy. Globalization aimed at making Indian economy part of the global network of trade and commerce, of transport and communication. More and more goods and services, investments and technology are moving among countries. Most regions of the world are closer. It could be done by removing all kinds of barriers; qualitative and quantitative on the export and import of goods and services, man (labour) and machines (capital), etc. It provided an opportunity for Indian firms to explore their markets in different parts of the world. However, this also meant that foreign corporations were offered Indian markets that were formally protected from global competition. Now they can sell their goods and services.

In pursuit of the objectives of economic reforms, Government took a series of initiatives in respect of the policies relating to the following areas including Industrial Licensing, Foreign Investment, Foreign Technology Agreements, Public Sector Policy and MRTP Act.

Industrial Licensing:Industrial licensing was a system of obtaining a license through a complex procedure, lengthy documentation and mal-practicingfrom the Government for setting up an industry. It discouraged entrepreneurs to set up industrial units and hampered industrialization in the country. Industrial Licensing is governed by the Industries (Development & Regulation) Act, 1951. The Industrial Policy Resolution of 1956 identified the following three categories of industries: (i) those that would be reserved for development in the public sector, (ii) those that would be permitted for development through private enterprise with or without State participation, and (iii) those in which investment initiatives would ordinarily emanate from private entrepreneurs. The License Raj or Permit Raj used to be a draconian act discouraging industrial activities in India. It had created a pessimistic business environment in the country.

Industrial licensing, under the broad umbrella of economic reforms, was abolished for all industries, except those specified, irrespective of levels of investment. That means, anyone can set an industrial unit without obtaining a license except certain conditions. These specified industries (Annex-II), will continue to be subject to compulsory licensing for reasons related to security and strategic concerns, social reasons, problems related to safety and over-riding environmental issues, manufacture of products of hazardous nature and articles of elitist consumption. The exemption from licensing aimed at helping many dynamic small and medium entrepreneurs who have been unnecessarily hampered by the licensing system. As a whole the Indian economy will benefit by becoming more competitive, more efficient and modern and will take its rightful place in the world of industrial progress.

Foreign Investment: Foreign investments in an economy has several advantages including technology transfer, marketing expertise, introduction of modern managerial techniques and new possibilities for promotion of exports. Prior to the LPG reforms initiated since 1991, The Government had restricted entry of foreign capital through numerous controls and regulations or tariff and non-tariff barriers. While freeing Indian industry from official controls, opportunities for promoting foreign investments in India after 1991 was a step in the right direction. This exposed the Indian industry not only to foreign capital but has brought in advanced technologies, professional experience and unleash its own potential for a rapid industrial development.

In order to invite foreign investment in high priority industries, requiring large investments and advanced technology, it has been decided to provide approval for direct foreign investment upto 51% foreign equity in such industries. This group of industries has generally been known as the "Appendix I industries" and were areas in which FERA companies have already been allowed to invest on a discretionary basis. Promotion of exports of Indian products calls for a systematic exploration of world markets possible only through intensive and highly professional marketing activities. To the extent that expertise of this nature is not well developed so far in India. Attraction of substantial investment and access to high technology involves interaction with some of the world's largest international manufacturing and marketing firms.Another important policy move was replacing FERA with Foreign Exchange Management Act (FEMA). The FEMA unlike FERA is less regulatory in nature. Presently, the RBI only manages foreign exchange in the country. It means there are no limits on foreign exchange spending. This has encouraged import of advanced technologies and superior machines which eventually benefit local industries in India.

Foreign Technology Agreements

There is a great need for promoting an industrial environment where the acquisition of technological capability receives priority. In the fast changing world of technology the relationship between the suppliers and users of technology must be a continuous one. Such a relationship becomes difficult to achieve when the approval process includes unnecessary governmental interference on a case to case basis involving endemic delays and fostering uncertainty. The Indian entrepreneur has now come of age so that he no longer needs such bureaucratic clearances of his commercial technology relationships with foreign technology suppliers. Indian industry can scarcely be competitive with the rest of the world if it is to operate within such a regulatory environment.

With a view to injecting the desired level of technological dynamism in Indian industry, Government provides automatic approval for technology agreements related to high priority industries within specified parameters. Indian companies are free to negotiate the terms of technology transfer with their foreign counterparts according to their own commercial judgement. The predictability and independence of action that this measure is providing to Indian industry is inducing them to develop indigenous competence for the efficient absorption of foreign technology. Greater competitive pressure induces our industry to invest much more in research and development than they have been doing in the past.

Public Sector Policy: The public sector has been central to our philosophy of development. In the pursuit of our development objectives, public ownership and control in critical sectors of the economy has played an important role in preventing the concentration of economic power. It reduces the regional disparities and ensures that planned development serves the common good. The Industrial Policy Resolution of 1956 gave the public sector a strategic role in economic development. Massive investments have been made post-independence to build a public sector which has a commanding role in the economy. Today key sectors of the economy are dominated by mature public enterprises that have successfully expanded production, opened up new areas of technology and built up a reserve of technical competence in a number of areas.

After the initial success of the public sector entering new areas of industrial and technical competence, a number of problems have begun to manifest themselves in many of the public enterprises. Serious problems are observed in the insufficient growth in productivity, poor project management, over-manning, lack of continuous technological upgradation, and inadequate attention to R&D and human resource development. In addition, public enterprises have shown a very low rate of return on the capital investment. This has inhibited their ability to regenerate themselves in terms of new investments as well as in technology development. The result is that many of the public enterprises have become a burden rather than being an asset to the Government.

Privatization or disinvestment of public sector enterprises (PSEs) is the process of transferring of the ownership rights from the Government to private sector. Disinvestment may be undertaken through equity sale at the stock market or strategic sale to a private company. The term ‘Disinvestment’ was popularized by Keynes. If the entire government company sold away to private players, and the Government transfers full control over its ownership to the buyer then it is called privatization. Disinvestment may be majority disinvestment (Government retaining more than 50% share in the PSE) or minority disinvestment (Government’s share reduces to below 50%, so influence on decision making decreases).

The disinvestment process of CPSEs (Central Public Sector Enterprises) in India was initiated inthe year 1991 with the advent of Government’s new economic policy. Disinvestment was started mainly through sale of minority shareholding in CPSEs and has considerably evolved over the years influenced bymarket conditions. This is done to bridge resources gap, and recommendation of bodies like Rangarajan committee and GV Ramakrishna Disinvestment commission. In 1996, the Government of India set up a Disinvestment Commission under the Ministry of Industries.The mandate of the commission was to assess the viability and advice the Government on disinvesting various PSE's.Many important PSEs like Bharat Aluminium Corporation Limited, Videsh Sanchar Nagar Limited, Lodhi Hotel, Computer Maintenance Company, Hindustan Zinc and many more

were either privatized or disinvested. Department of Investment and Public Asset Management (DIPAM) under the Ministry of Finance, Government of India is tasked with the entire process of disinvestment in India. Disinvestment helped Government realize massive funds that could be used for welfare activities and financing of infrastructural developmental projects. However, some of the funds have also been diverted towards financing of the public debt in the country.

Annual CPSE Disinvestment Target vs. Achievement since 1994-95

Year	Target	Achieved (Rs. Crore)	Achievement (in per cent)
1994-95	4,000	4,843	121.08
1995-96	7,000	168	2.41
1996-97	5,000	380	7.59
1997-98	4,800	910	18.96
1998-99	5,000	5,371	107.42
1999-00	10,000	1,585	15.85
2000-01	10,000	1,871	18.71
2001-02	12,000	3,268	27.24
2002-03	12,000	2,348	19.57
2003-04	14,500	15,547	107.22
2004-05	4,000	2,765	69.12
2005-06	0	1,570	N.A.
2006-07	0	0	N.A.
2007-08	0	4,181	N.A.
2008-09	0	0	N.A.
2009-10	25,000	23,553	94.21
2010-11	40,000	22,763	56.91
2011-12	40,000	14,035	35.09
2012-13	30,000~	23,857	79.52
2013-14	54,000	21,321	39.48
2014-15	58,425	24,349	41.68
2015-16	69,500	24,058	34.62
2016-17	56,500$	46,378	82.09
2017-18	72,500	1,00,642	138.82
2018-19	80,000	87,513	109.39
2019-20	90,000	50,294	55.88
2020-21	2,10,000	32,742	15.59
Total	10,97,725	5,29,590	48

Source: Sourced from http://bsepsu.com/Annual_Table.asp

Every year, the government fixes a target for disinvestment of PSEs. For instance, in 1991-92, it was targeted to mobilise Rs 2500 crore through disinvestment. The government was able to mobilise Rs 3,040 crore more than the target. In 2017–18, the target was about Rs 1,00,000 crore, and the achievement was about Rs 1,00,057 crore. Critics point out that the assets of PSEs have been undervalued and sold to the private sector. This means that there has been a substantial loss to the government and the outright sale of public assets. Moreover, the proceeds from disinvestment are used to offset the shortage of government revenues rather than using it for the development of PSEs and building social infrastructure in the country.

The Disinvestment program has come a long way from the cautious start made in fiscal 1991-92 when small stakes in select CPSEs was divested to financial institutions alone. As on 31st January, 2018, CPSEs constituted 10.93% and 11.04% of the total market capitalization of companies listed at BSE and NSE respectively. Government strategies of disinvestment have taken shape over the years and have been influenced by political compulsions, budgetary constraints, market conditions and ideology of ruling political party at the Centre. In a haste of fund-raising funds through privatization/disinvestment, the government has resorted to multiple shortcuts in the disinvestment process. It has compromised both the long-term interests of profitable PSUs, and the basic objectives of the disinvestment programme itself.

There are disadvantages of economic reforms as well. Reforms leads to too much of dependence on market resulting into unreasonable price rise, undesired allocation of resources and regional unbalance in the economic development. Availability of funds for social welfare like health and education and social security benefits etc. may decrease. Economic reforms increase exposure to global competition eventually leading to Indian firms, particularly small scale industries, struggling to survive in the long. Undue political/policy interference by multinational companies may be risky from the point of view of national security as well as political stability of the nation. Reforms may increase temptation of the Government to sell profit making public sector enterprises as well. The process of globalisation through liberalisation and privatisation policies has produced positive, as well as, negative results both for India and other countries. Some scholars argue that globalisation should be seen as an opportunity in terms of greater access to global markets, high technology and increased possibility of large industries of developing countries to become important players in the international arena. On the contrary, the critics argue that globalisation is a strategy of the developed countries to expand their markets in other countries. According to them, it has compromised the welfare and identity of people belonging to poor countries. It has further been pointed out that market driven globalisation has widened the economic disparities among nations and people.

14.4 INDICATORS OF INDUSTRIAL GROWTH

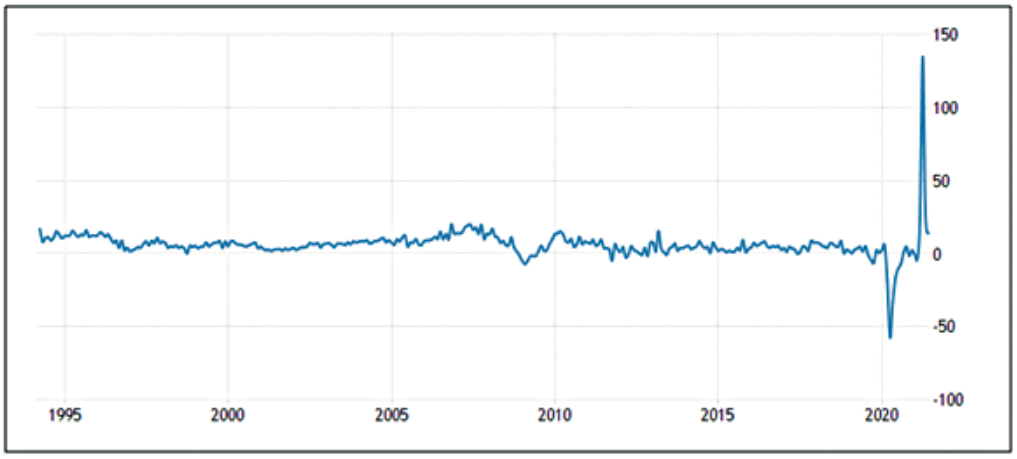
Trends in performance of Industrial sector are primarily monitored through Index of Industrial Production (IIP) (monthly) and Annual Survey of Industries, ASI. The Index of Industrial Production (IIP) is an index which shows the growth rates in different industry groups of the economy in a stipulated period of time. The IIP index is computed and published by the Central Statistical Organisation (CSO) on a monthly basis. Whereas enterprise surveys pursuant to Economic Census provide an idea about the dynamics of unorganized sector. Ministry of Statistics & PI, through active involvement of both Central Statistics Office & National Sample Survey Office, is the backbone of Industrial Statistics in India.Various Ministries/Departments (Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Ministry of Micro Small & Medium Enterprises, Ministry of Corporate Affairs, Indian Bureau of Mines, Ministry of Mines, Office of Textile Commissioner, Coffee/ Tea Boards etc.) maintain their own statistics.

Indian industry sometimes grew fast, sometimes faster but at times at much slower rates. The pattern of growth was never same for all years post-independence. The growth trends in Indian industry can be discussed in various phases as follows.

India Industrial Production

Source:https://tradingeconomics.com/india/industrial-production

Phase I-High Growth Phase (1950-51 to 1965-66)



This was the period between 1st plan and 3rd plan that laid down the foundation for the industrial development. There was a noticeable acceleration in industrial output due to substantial investments in the industrial sector, particularly in heavy industries in manufacturing and supporting infrastructure.

Phase ll-Industrial Deceleration and Structural Retrogression (1966-80)

Phase of low growth phase or industrial deceleration from 1965 to 1974. The rate of growth fell steeply from 9.0% per annum during the 3rd plan to a mere 4.1% per annum in 1974. However, there was a sharp increase of 10.6% in Industrial production in the year 1976-77. The rate of industrial growth for the remaining 4 years comes down considerably. Deceleration in industrial growth during the period 1965-1980 indicates structural retrogression that plagued the industrial sector during this period.

Phase III-The Period of Industrial Recovery (1981-1991)

The period of 1980s can broadly be termed as a period of industrial recovery. The rate of industrial growth was 6.4% per annum during 1981-85, 8.5% per annum during the 7th plan and 8.3% in 1990-91. This is a marked upturn from growth rates of around 4% achieved during the latter half of sixties and the seventies. Total factor productivity which registered a negative and negligible growth of -0.2 to -0.3% per annum in the period 1966-67 to 1979-80 showed a marked improvement in the first half of the 80s when it registered a growth of 3.4% per annum.

Phase IV-Reforms Phase (July 1991 onwards)

The worst industrial growth was observed in 1991-92 when it grew at a rate of 2.3%, however recovered to 6.0% in 1993-94. Interestingly, the industrial growth then accelerated to 9.1% in 1994-95 and 13.0% in 1995-96 surpassing the growth rates of 1980s. Thereafter, it declined to 6.1% in 1996-97, this deceleration continued in 1997-98 as well. The main reason for the slowdown may be the tightening of the monetary policy in 1995-96 and consequent credit squeeze with high interest rates. The Industrial growth slowed down in 2000-01 and 2001-02 due to dismal performance by all broad sectors such as manufacturing, electricity and mining and all end use groups such as capital goods, intermediate goods and consumer goods, both durable and non-durables.

The year 2004-05 started on a positive note in April 2004 with annual growth of 8.9% in the Index of Industrial Production (IIP). The year 2004-05 conforms to the normal historic pattern of industrial buoyancy, 8.4% growth, following a good agricultural year.

The Indian economy has inched closer to the Chinese economy with its dominant manufacturing sector.

Sectoral Growth Rates as per IIP (%) calculated w.r.t. previous year

Sub-Sector	Mining	Manufacturing	Electricity	General
Weights	14.37	77.63	7.99	100.00
2012-13	-5.3	4.8	4.0	3.3
2013-14	-0.1	3.6	6.1	3.3
2014-15	-1.4	3.8	14.8	4.0
2015-16	4.3	2.8	5.7	3.3
2016-17	5.3	4.4	5.8	4.6
2017-18	2.3	4.6	5.4	4.4
2018-19	2.9	3.9	5.2	3.8
2019-20	1.6	-1.4	1.0	-0.8
2020-21	-7.8	-9.6	-0.5	-8.4

Source: RBI

Annual Growth Rates as per IIP (%) calculated w.r.t. previous year

Use-based category	Primary goods	Capital goods	Intermediate goods	Infrastructure/ construction goods	Consumer durables	Consumer non-durables
Weight	34.05	8.22	17.22	12.34	12.84	15.33
2012-13	0.5	0.3	5.1	5.4	4.9	6.1
2013-14	2.3	-3.7	4.6	5.7	5.6	3.7
2014-15	3.8	-1.1	6.1	5	4	3.8
2015-16	5	3	1.5	2.8	3.4	2.6
2016-17	4.9	3.2	3.3	3.9	2.9	7.9
2017-18	3.7	4	2.3	5.6	0.8	10.6
2018-19	3.5	2.7	0.9	7.3	5.5	4
2019-20	0.7	-13.9	9.1	-3.6	-8.7	-0.1
2020-21	-7	-18.6	-9.4	-8.7	-15	-2.2

Source: RBI

It is important to note that the annual growth rate as per the IIP data for the period between 2012-13 and 2020-21 shows that movement has relatively slowed down to below 5% in all the sub-sectors of industrial sector, be it primary goods or capital goods. Further, the growth rates of the three major sub-sectors of manufacturing, namely, mining, manufacturing and electricity, one can see a downward trend during the same period. Slowdown in industrial performance is not a good sign for overall economy of the country because, for instance, manufacturing, value added (% of GDP) in India was reported at 12.96 % of GDP in 2020. The COVID-19 pandemic is visibly having an adverse impact on the industrial activities in India.

Self-assessment Exercise B

1) Write four features of new industrial policy, 1991.

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2) Write three advantages of foreign investment.

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3) What do you mean by Liberalization, Privatization and Globalization?

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14.5 LET US SUM UP

Evidently, in the process of evolution of industrial policy in India, the Government's intervention has been extensive. Unlike many East Asian countries which used the State intervention to build strong private sector industries, India opted for the State control over key industries in the initial phase of development. In order to promote these industries the Government not only levied high tariffs and imposed import restrictions, but also subsidized the nationalized firms, directed investment funds to them, and controlled both land use and many prices.

In India, there has been a consensus for long on the role of government in providing infrastructure and maintaining stable macroeconomic policies. However, the path to be pursued toward industrial development has evolved over time. The form of government intervention in the development strategy needs to be chosen from the two alternatives: 'Outward-looking development policies' encourage not only free trade but also the free movement of capital, workers and enterprises. By contrast, 'inward-looking development policies' stress the need for one's own style of development. India initially adopted the latter strategy.

The advocates of import substitution in India believed that we should substitute imports with domestic production of both consumer goods and sophisticated manufactured items while ensuring imposition of high tariffs and quotas on imports. In the long run, these advocates cite the benefits of greater domestic industrial diversification and the ultimate ability to export previously protected manufactured goods. This facilitated the economies of scale, low labour costs, and the positive externalities of learning by doing cause domestic prices to become more competitive than world prices. However, pursuit of such a policy forced the Indian industry to have low and inferior technology. It did not expose the industry to the rigours of competition and therefore it resulted in low efficiency. The inferior technology and inefficient production practices coupled with focus on traditional sectors choked further expansion of the Indian industry and thereby limited its ability to expand employment opportunities. Considering these inadequacies, the reforms currently underway aim at infusing the state of the art technology, increasing domestic and external competition and diversification of the industrial base. Such activities will create additional employment opportunities.

In retrospect, the Industrial Policy Resolutions of 1948 and 1956 reflected the desire of the Indian State to achieve self-sufficiency in industrial production. Huge investments by the State in heavy industries were designed to put the

Indian industry on a higher long-term growth trajectory. With limited availability of foreign exchange, the effort of the Government was to encourage domestic production. This basic strategy guided industrialization until the mid-1980s.

Till the onset of reform process in 1991, industrial licensing played a crucial role in channeling investments, controlling entry and expansion of capacity in the Indian industrial sector. As such industrialization occurred in a protected environment, which led to various distortions. Tariffs and quantitative controls largely kept foreign competition out of the domestic market, and most Indian manufacturers looked on exports only as a residual possibility. Little attention was paid to ensure product quality, undertaking R&D for technological development and achieving economies of scale. The industrial policy announced in 1991, however, substantially dispensed with industrial licensing and facilitated foreign investment and technology transfers. These activities threw open the areas hitherto reserved for the public sector.

The policy focus in the recent years has been on deregulating the Indian industry, enabling industrial restructuring, allowing the industry freedom and flexibility in responding to market forces. It provides a business environment that facilitates and fosters overall industrial growth. The future growth of the Indian industry as widely believed, is crucially dependent upon improving the overall productivity of the manufacturing sector, rationalisation of the duty structure, technological upgradation, the search for export markets through promotional efforts and trade agreements and creating an enabling legal environment.

14.6 KEY WORDS

Industrial policy: Industrial policy refers to any type of selective government intervention or policy that attempts to alter the structure of production in favour of sectors that are expected to offer better prospects for economic growth.

Industrial licensing: Industrial licensing was a system of obtaining a license through a complex procedure, lengthy documentation and mal-practicing from the Government for setting up an industry.

FERA: Foreign Exchange Regulation Act is a legislation that came into existence in 1973 with the purpose to regulate certain dealings in foreign exchange, impose restrictions on certain kinds of payments and to monitor the transactions impinging the foreign exchange and the import and export of currency.

Disinvestment: Disinvestment means sale or liquidation of assets by the government, usually Central and state public sector enterprises, projects, or other fixed assets.

Globalization: Globalization is the process of interaction and integration among people, companies, and governments worldwide.

14.7 TERMINAL QUESTIONS

Short questions

1. Define industrial policy.
2. Distinguish between privatization and disinvestment.
3. Define industrial licensing.
4. Explain the meaning of globalization.
5. Define liberalization.

6. Give two reasons behind privatization of public sector enterprises.
7. How was the state of economic affairs of the economy of India during the early years of 1990s that led to LPG reforms in the country?

Essay type of questions

1. Discuss in detail Industrial Policy Resolution, 1956.
2. Explain in detail LPG reforms initiated in India since 1991.
3. Discuss how state controls and regulations like MRTP Act, FERA and Industrial Licensing acted as obstacles on the road of industrialization.
4. Discuss in detail the indicators of industrial growth in India.

Note: These questions/exercise will help you understand the unit better. Try to write answers for them. But do not submit your answers to the University for assessment. These are for your practice only.

FURTHER READINGS

The following textbooks and online resources can be referred for further in-depth reading on the topics discussed in this unit.

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UNIT 15 PUBLIC AND PRIVATE SECTOR

Structure

15.0 OBJECTIVES

After going through this unit, you will be able to:

- Explain the meaning of public and private sector;
- Describe the respective roles of public and private sector in the economy;
- Give a comparative view of public and private sector;
- Discuss the contribution of public and private sector in India;
- Define the public-private partnership;
- Analyse the different models of PPP and their application;
- Indicate the challenges before PPP in India;

15.1 INTRODUCTION

Private sector is managed by private individuals. The primary focus of companies in the private sector is making a profit. Private sector entities have less exposure to government interference. There are numerous types of undertakings in the private sector like retail, manufacturing, local services etc. The role of the private sector is integral to the development of an economy. Not only does the private sector contribute to national income, but it is also a principal job provider. The private sector needs a good public sector and stable macro-economic environment.

The public sector is owned and managed by the government (central, state and local). Governments provide public goods. Many argue that national defense is an important public good because the security of the nation benefits all its citizens which is financed through taxation. Individual countries will reach different decisions as to which goods and services should be considered public goods, and this is often reflected in their national budgets. Both the public and private sector have a role to play.Choosing the right policies to promote economic growth and development is essential.

In India,since 1991 private sector financing through public-private partnerships (PPP) has become increasingly popular as a way of procuring, renewing

and maintaining public sector infrastructure in many sectors such as social infrastructure, transportation, public utilities, communications, government offices and others in which public services are provided.

In this Unit, you will learn the concept of public and private sector, their role in the economy and a comparison of both the sectors. Along with this the relationship between them is explained through the concept of public-private partnership. The Government has focused on developing several enabling tools and activities to spur private sector investments in India through public-private partnerships (PPPs). In this Unit, you will learn the concept, features, role and importance of public and private sector. You will be further apprised with differences between public and private sector, public private partnership model, PPP model and forms of PPP in India.

15.2 CONCEPT AND FEATURES OF PUBLIC SECTOR AND PRIVATE SECTOR

You must be watching in the news about the scenario of Public Sector and Private sector. Let us learn what do we mean by Public Sector and Private Sector and what are their features.

Concept and features Public Sector

Some goods and services are best provided by the public sector to make sure that everyone benefits equally. The government needs to provide such goods having the characteristics of public goods. A public good refers to a commodity or service that is made available to all members of a society. There are the two important criteria that distinguish a public good:

(i) it must be non-rivalrous and

(ii) non-excludable.

Non-rivalrous means that the goods do not decrease in supply as more people consume them. Non-excludability means that the good is available to all citizens. These services are administered by governments and available to all. The cost of public good is collectively paid for through taxation. Examples of public goods are law and order enforcement, defense, the rule of law and the judicial system. Public goods also refer to more basic goods, such as access to clean air, drinking water, use and conservation of natural resources etc. Some countries also treat social services–such as healthcare and public education–as a type of public good.

Government spending on public goods provide economic and social benefits to the community which significantly outweigh its costs. The main objective of public sector is to serve the public interest. The government ensures public welfare. It is not out of place to mention that Government-owned companies also make a profit, but the underlying tone remains public welfare.

The private sector will not provide public goods because of the free-rider problem. This problem happens because some members of a community fail to contribute their fair share to the costs of a shared resource. Free riding is considered a failure of the market system. Non-payment for the service/good makes it infeasible to produce economically.

A mixed economy has a mixture of the both public and private sectors. India has a mixed economy and the mixture depends on requirements of the economy to balance profit-making and social welfare.

The public sector includes all government organizations, including the central government, states, and local. Some government agencies operate as "corporations." These agencies are established by an act of Parliament to provide public services.

Features of public sector: Following are important feature of the public sector:

(i) More stable business and services: Businesses and services in the public sector are more stable than private ones. By and large they are not profit driven.

(ii) Job security: Job security and other related facilities is one of the many appealing features public sector possess and provide a better and congenial working environment. Working in or with the public sector holds many advantages for employees, and consumers.

(iii) Reinvestment of profits: Whatever profits earned are reinvested in the business and the community.

(iv) Ownership and Control: In India, the public sector ownership, control and management by a government body can be complete or partial. These companies usually come under specific ministries and are functionally administered by them. It is to be noted that there are types of public sector organisations which include departmental undertakings (e.g. Railways, Posts, etc.), statutory corporations e.g. SBI, LIC, etc.) and government companies (e.g. HPCL, IOCL, etc.).

Concepts and features of Private Sector

The private sector is a part of the national economy that is not owned by the government. They conduct their operation through companies or entrepreneurs who mainly focus on earning profit and seek customer's satisfaction.Companies in the private sector are usually free from state ownership or control. However, sometimes the private sector can collaborate with the government in a public-private partnership to jointly deliver a service or business venture to the community. The private sector makes up a big part of Indian economy.The extent of private sector participation in infrastructure varies across sectors and with the level of national economic development.

Features of the private sector: The main features of the private sector are:

(i) Profit motive: Profits provide reward for the risk taken and the required return on capital.

(ii) Private ownership and control: Private entrepreneurs own, control and manage the business. Each formation has its benefits and legalities depending upon the number of employees, source of funding, business scale, and government regulations.

(a) When the ownership belongs to a single person, company is referred to as a sole proprietorship. It is a business owned, incorporated, and sustained by one person. The proprietor can employ others for conducting and managing the business. It bears an unlimited liability towards the business debts. Privately owned small- and medium-size businesses constitute the bulk of the private sector. Small professional entities, like doctors' and lawyers' offices, plumbers, technicians, contractors, developers and designers etc. also fall under this category.

(b) Under partnership a group of persons jointly own a firm. In partnerships, two or more people come together to conduct a business. It has lesser legal compliances than a company. The partners are subjected to unlimited personal liability on the business debts.

(c) A joint-stock company is a business owned by its investors, with each investor owning a share based on the amount of stock purchased. Joint-stock companies are formed in order to access huge amount of finance for large scale production which is not possible for an individual to fund. It is created to fulfil organizational goals. A company is often funded by debt-equity. It enjoys a separate legal identity and has certain rights. The owners of a company are called shareholders. These are the people who invest capital and are the prime decision-makers for business-related matters. Employees usually work under a board of directors. The directors are responsible for carrying the business of a company based on the decisions taken by the shareholders in the Annual General Meeting. Large Corporate firms constitute the most prominent entities of the private sector. Their importance results from exerting considerable political and economic influence. Government agencies exercise regulations on them but do not control them.

(iii) No state interference: There is no interference by the governments in the ownership and control of a private sector firm. However, any business or corporate entity operating in the country must operate under the laws of the land.

(iv) Independent management: The management of the private sector firm wholly depends on its owners. A sole proprietorship firm is managed by the ownerwho takes all the decisions and acts on behalf of the company in legal matters. In the case of management of a joint-stock company a group of directors who are elected representatives of the shareholders are responsible for the operation of the company.

(v) Private finance: The private sector firms raise capital from their owners or shareholders by varied means. Under a sole proprietorship the owner contributes capital, and partners invest capital in case of a partnership. A joint-stock company raises capital through the issue of share and debentures (a type of long-term debt). It is well to remember that it depends on the financial strength of the firm, companies with sounds financials have better options to mobilize more funds from the market.

(vi) Work culture of employees: The private sector has a competitive work culture and employees'performance is very important for career growth and higher compensation.

Check your progress I

1) What is the private sector?

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2) Explain the concept of public sector?

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3) Give four features of private sector?

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4) Point out four important features of public sector?

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5) How is public sector organized?

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15.3 ROLE AND IMPORTANCE OF PUBLIC AND PRIVATE SECTOR

You have learnt about the concepts and features of Public Sector and Private Sector. Let us now learn the role and importance of Public Sector and Private Sector.

Role and Importance of Public sector

In early years of India's independence, capital was scarce and the base of entrepreneurship was also not strong enough. Hence, the 1956 Industrial Policy Resolution gave primacy to the role of the public sector which was directly responsible for industrial development. The strategies for the public sector were later outlined in the policy statements in the years 1973, 1977, 1980 and 1991. The year 1991 can be termed as the watershed year, heralding liberalisation of the Indian economy.

The public sector provided the required thrust to the economy and developed and nurtured the human resources, the vital ingredient for success of any enterprise. The public sector emerged as the driver of economic growth. In India, the public sector is made up of different manufacturing and services which are run by the government. This is evident from the fact that starting with heavy capital goods industries, services like transport, communication, and further extended to academic institutions (schools, colleges, universities, libraries), health services (institutions and hospitals) to various welfare services. The public sector as a whole employs millions of peoples in India. It provides a lot of job opportunities for those interested in a range of career paths.

Over the years, operations of PSEs covers a wide range of activities in the manufacturing, engineering, steel, heavy machinery, machine tools, fertilizers, drugs, textiles, pharmaceuticals, petro-chemicals, extraction and refining of crude oil and services such as telecommunication, trading, tourism, warehousing, etc. and a range of consultancy services.

Challenges before public sector: With the advent of globalization, the public sector faced new challenges. No longer the public sector had the privilege of operating in a sellers' market and had to face competition both from domestic and international competitors. Since 1980s there has been a feeling that the public sector is a burden for the economy. This is largely because of the factors like (Giovanni Tria, 2014):

(i) bureaucracy and delays in the decision making processes

(ii) irrational taxation,

(iii) hyper-regulation,

(iv) regulatory uncertainty,

(v) inefficiency,

(vi) inability in understanding the problems facing enterprises, and

(vii) absence of knowledgeabout how the markets work.

Technologies can change the public sectors as they have changed a lot of areas in the private one. Giovanni Tria (2014) emphasised that "the public sector must take the opportunity coming from the digital innovation to change the way of thinking: the power does not arise from the ownership of data, but from the quality of services. Digital transformation can create a new relationship between public and private sector".

Liberalising and deregulatory steps were initiated from the year 1991 onwards. Since then, the thrust has been on reduction of areas reserved exclusively for public sector and disinvestment of equity of selected public sector enterprises (PSEs). It was recognised that public enterprises could not compete effectively with private entrepreneurs without freedom to function and operate commercially. The public sector needs to change its way of thinking. Financing the economy's infrastructure needs will require greater outlays from the public sector and a more - than - proportionate increase in private investment.

Many scholars have argued that public sector must not venture into those areas, where the private sector could undertake job efficiently and emphasis was laid on market driven economy. As of 2022, policy makers getting convinced that role of the government should be that of a facilitator and regulator rather than the producer and manager.

Role and Importance of Private sector

The private sector has many roles concerning the society and national economy. The role of private sector is explained below:

(i) Significant stakeholders of the economy: When private firms develop industrial areas, plants, and job-hubs, they also develop the areas around them. For example, as per a 2017 study, in India, the private sector's share in providing jobs had been over 90 percent, while it also contributed over 75 percent to domestic capital formation (Harsh Sachdeva). As such, they enhance the GDP, per capita income, infrastructure, and quality of life. The private sector is an important player in the economy due to the input it makes to the national income. Particularly, contributes to tax revenues and ensures the efficient flow of capital.

(ii) Generate employment: The private sector plays the pivotal role of generating employment opportunities in the country. Private firms employ a major portion of the labour force and act as the backbone of employment.

(iii) Assist in development: The private sector enhances the process of industrialization. By introducing new commodities, equipment, machinery and technology, companies in the private sector produce innovative ideas that modify methods of production and lead to better economic development. The intense competition forces the companies to develop newer technologies and ways to cut down resource wastage. Also, to satisfy the customers better, companies develop innovative products and services that have improved the quality of life.

(iv) Provision of goods and services: The sector is responsible for providing essential goods and services to most citizens of the country at a competitive price.

(v) Promote diversification of business: The private sector encompasses varied businesses and provides new companies with the opportunity to develop no matter the type of business. With this freedom, private companies are able to diversify their operations.

(vi) Some industrial houses in India have played a major role in industrialisation of the country. They are often cited as examples of successful entrepreneurs in the country. Though some have existed since the pre-independence time, others have come up later. Successful diversification has been an important feature of operation of the industrial houses.

The importance of private sector in Indian economy since 1990s has been enormous. Liberalisation has led to inflow of foreign direct investment (FDI) along with modern technology, which provided ample incentive to private sector to grow faster. This also fueled competition amongst same industry players as well as in public sector enterprises.

There has been faster increase in total investment of private sector. These investments were made in sectors like financial services, transport, social services, manufacturing, infrastructure, agriculture products, information technology and telecommunication. Manufacturing companies covering sectors like automobile, chemicals, textiles, agri-foods, computer hardware, telecommunication equipment, and petrochemical products are the main driver of growth of Indian economy. As of early 2022, the trend shows a marked increase in investment in areas covering pharmaceutical, biotechnology, semiconductor, contract research and product research and development.

Challenges before private sector: The private sector is constrained by the multiple regulations governing the entry, exit, and operations of firms. These pose an enormous compliance burden—especially on MSMEs that have limited resources—and discourage entrepreneurial talent and reduce jobs. Multiple land acquisition policies and variations in rules on how land can be acquired and compensation paid to the land seller have added to the complexity of doing business. Securing environmental clearances for new projects has also been a key roadblock for investors.

Both have a role in the economy: For the progress and development of the country, both the sectors must go hand in hand as only one sector cannot lead the country to the path of success. Stiglitz (2016) has highlighted that in all successful economies, private sector has played an important role. MSME's have played an especially important role in job creation. But MSME's often face special problems in accessing finance.

15.4 DIFFERENCE BETWEEN PUBLIC AND PRIVATE SECTOR

There are some structural and operational differences between public and private sector Jean Murray (2021) has explained the main differences between public and private sector in the following way:

(i) Profit Incentive. Private firms have a profit incentive to cut costs and develop products demanded by consumers. Whereas in the public sector, this profit motive is often absent. Therefore, government bodies have a greater tendency to be overstaffed and inefficient.

(ii) Ownership: Individuals own private-sector businesses. Governmental agencies are not owned by individuals; they are owned by and operate on behalf of the public through officials.

(iii) In the private sector working environment is quite competitive which is missing in the public sector because they are not established to meet commercial objectives. The employees of the public sector have the security of the job along with that they are given the benefits of allowances, perquisites, and retirement benefits like gratuity, pension, etc. which are generally not available in the case of the private sector.

(iv) Employment: Employment differs between the public and private sectors. In the public sector, civil service employees work for central, state, or local government agencies. They receive pay and benefits under different systems than private employees. In the private sector, employers have more flexibility. Each employer can set its own employment rules, as long as they abide by central and state employment laws.

(v) Efficiency and Productivity: Because private-sector businesses are focused on making a profit, they are often considered more productive and competitive. Public-sector organizations, on the other hand, are de facto monopolies. As there is no incentive to make a profit, public organizations tend to be less efficient and less productive. Still, public-sector organizations have an important role in the economy by providing public goods, reducing unemployment, and stabilizing the economy.

(vi) Bureaucracy. For political reasons, it is sometimes more difficult to get rid of surplus workers in the public sector than the private sector. Private businessmen donot have to worry about political popularity and so it is easier to retrench more employees if it helps efficiency and profit. The public sector, on the other hand, is more likely to employ surplus workers in unproductive jobs.

In general public sector uses seniority for promoting employees, however, merit cum seniority is also taken as a base for promoting employees. Unlike private sector, where performance is everything, and so merit is considered as a parameter to promote them.

Check your progress II

1) What is the role of the private sector?

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2) Who is the single biggest creator of jobs?

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3) Highlight four importance of public sector in Indian economy?

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4) What goes wrong in public sector? Give four factors.

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5) Distinguish between Public sector and Private sector?

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6) Indicate four challenges faced by private sector?

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15.5 PUBLIC-PRIVATE PARTNERSHIP MODEL AND APPLICATION

The expression PPP is a widely used concept world over but is often not clearly defined.World Bank (2012) has defined"public–private partnership (PPP) as a long-term contract between a private party and a government agency for providing a public asset or service, in which the private party bears significant risk and management responsibility". Private sector businesses leverage governmental assets and resources while developing, financing, owning and operating public facilities or services.

The private sector may also contribute investment capital depending on the form of contract. As regards allocation of risks, the design of contract should take into account who are best able to manage those risks so that costs are minimizedalong with improvement in performance.

PPPs have become an increasingly popular way to get major infrastructure projects built. PPPs rely on the recognition that public and private sectors each have certain advantages relative to other in performing specific tasks. The responsibilities of the private sector could entail finance, design, construction, operation, management and maintenance of the project.

Rationale for PPPs:There are following major aspects that drive governments to enter into PPPs for infrastructure projects. (ADB 2008):

(i) Inadequacy of funds with the governments is the main reason to mobilize private sector capital for infrastructure investment.

(ii) The government aims to increase efficiency and use available resources more effectively.Since the public sector is structured in such a way that it has no incentives for efficiency to build and operate infrastructure projects.

(iii) The intention is to push reform through a reallocation of roles, incentives, and accountability. PPP provides an opportunity to reallocate respective roles of public and private sector.

(iv) Setting the optimal level of private-sector participation and risk transfer should result in projects being completed on time and on budget. Private-sector risk-management capabilities look at the entire spectrum of relevant risks, often with a particular focus on their potential commercial and financial effects.

In meeting the public needs there exists a growing acceptance that private sector partnerships serve as an additional and complementary instrument to supply of infrastructure and services. However, there are no any standardized and globally accepted schemes of public and private sector relations which fit to all economies. Governments choose the level and coverage of private sector engagement in consistent with economic profile, fiscal condition and business environment.

How to make PPPs a successful venture? PPPs are complex arrangements and can create potential problems for both the public and the private sectors if they are not properly designed and administered. This requires precautionary measures for the success of PPPs. Ultimately, the success of PPPs depends not only on developing mutual trust between government officials and private sector executives, but on building and maintaining public confidence in the integrity of the partnerships (Rondinelli, 2004). For PPPs to work effectively, governments must retain responsibility and accountability for deciding among competing objectives; define chosen objectives for services provision; set standards, criteria, output targets; and safeguard the broader public interest. To implement PPP transaction requires the passage of laws and establishment of separate regulatory bodies. This is essential for the success of a PPP project.

Features of PPP: The main features of PPP are:

(i) PPP describes a range of possible relationships among public and private entities in the context of development, infrastructure and other services (ADB, 2008).

(ii) The purpose is to make use of private sector's expertise in commerce, management, operations, and innovation to run the business efficiently.

(iii) Governments contract with private organizations takes place through three types of contracts:

   a. Service contracts. Contracts with a private firm to provide a specific service for a specified period of time.

   b. Management Contracts. Contracts to provide services more efficiently while maintaining ownership control.

   c. Lease Contracts. Used extensively for both public services and commercial operations.

(iv) Co-ownership or co-financing of projects,

(v) Build operate-transfer (BOT) arrangements,

(vi) Governments around the world use turnkey projects with consortia of private companies to build telecommunications, transport, shipping, airport, utility, and water and sewerage infrastructure.

(vii) There are benefits for both citizens and governments in PPP arrangement. PPPs facilitate to the generation of resources and knowledge transfer.

15.6 INDIA AND PPP MODEL

You have learnt the features, importance and difference between public sector and private sector as well as their model. Let us now learn PPP model in Indian context.

In the Indian context, the term PPP is used very loosely. According to the National Public Private Partnership Policy 2011, "a Public Private Partnership (PPP) means an arrangement between the government/statutory entity/government owned entity on one side and a private sector entity on the other, for the provision of public assets and/or public services, through investments being made and/or management being undertaken by the private sector entity. This is done for a specified period of time, where there is well defined allocation of risk between the private sector and the public entity.The private entity receives performance linked payments that conform (or are benchmarked) to specified and pre-determined performance standards, measurable by the public entity or its representative".

Since the need of infrastructural development in India is on the rise, the public private partnership is the way to go forward as it provides innovation, diversity, and higher productivity, efficient and cost effective delivery of projects. With the announcement of industrial policy of July 1991, a new wave for PPP was felt and it was decided to allow private participation in the power sector which opened up the doors for independent power producers. The National Highways Act, 1956 was altered in 1995 to empower private support. In 1994, through a focused offering process, licenses were conceded to eight-cell cellular telephone utility administrators in four metro urban areas and 14 administrators in 18 state circles. The main objectives of pursuing PPP model in India relate to the following:

(i) Better infrastructure.

(ii) Risk sharing.

(iii) Optimum allocation of resources.

(iv) Innovations.

(v) Aid in growth of other sectors.

(vi) The catalyst for the economy.

(vii) More employment generation.

(viii) Improve the image of the country.

(ix) Attract foreign direct investment (FDI).

For smooth operation of PPP a separate wing has been setupin 2006 under Department of Economic Affairs (DEA), Ministry of Finance. This wing acts as the Secretariat for Public Private Partnership Appraisal Committee (PPPAC), Empowered Committee (EC), and Empowered Institution (EI) for the projects proposed for financial support through Viability Gap Fund (VGF).

The PPP Cell is responsible for policy level matters concerning PPPs, including policies, schemes, programmes, model concession agreements and capacity

building. The PPP Cell is also responsible for matters and proposals relating to clearance by PPPAC, scheme for financial support to PPPs in infrastructure (VGF Scheme) and India Infrastructure Project Development Fund (IIPDF).

15.7 FORMS OF PPP IN INDIA

In India PPPs take a wide range of forms varying in the degree of purpose, involvement of the private entity, legal structure and risk sharing. The private sector participation in the infrastructure building have broadly been taken place through corporatisation of existing PSUs (e.g. GAIL, ONGC, IOC, etc), greenfield investment for development of new projects. PPP in the form of BOT or BOOT model in the road sector and concession agreements with the private sector such as rehabilitate, operate, and transfer (Lakshmanan, 2008). India majorly follows 3 types of PPP models out of many models available. They are:

(i) Hybrid Annuity Model (HAM)

(ii) Build-Operate-Transfer (BOT)

(iii) Engineer-Procure-Construct (EPC)

Table 15.1 Differences among BOT, EPC and HAM.

	BOT	EPC	HAM
Risk	Private	Public	Private (60 per cent) Public (40 per cent)
Finance	Private	Public	Private (60 per cent) Public (40 per cent)
Operations and Management	Private	Public	Private
Revenue	Private	Public	Public

HAM is a mixture of BOT and EPC where the financing, risks, operations, etc, are distributed between government and a private partner. Look at Table 15.1 which shows the difference in these models:

(source: https://www.jatinverma.org/public-private-partnership-in-india)

(i) BOT (build operate transfer) models used for two-thirds of the total PPP projects in India. User-fee based BOT model widely used in medium- to large-scale projects, especially in energy and transport (road, ports and airports). Annuity-based BOT model commonly used in sectors/projects not meant for cost recovery by levying a fee on sectors such as health and education.

(ii) Modified design-build (turnkey) contracts yield time and cost saving benefits; also enable efficient risk-sharing and improve quality.

(iii) Performance- based management/ maintenance contracts suitable for sectors (water supply, sanitation, solid waste management and road maintenance) constrained by the availability of economic resources to improve efficiency

Government Incentives for PPPs

The Government has facilitated the PPP sector by offering:

(i) Viability Gap Funding (VGF): Viability Gap Funding of up to 40 per cent of the cost of the project can be accessed in the form of a capital grant.

(ii) India Infrastructure Project Development Fund (IIPDF): It helps the Central and the State Governments and local bodies through financial support for

project development activities (feasibility reports, project structuring etc.) for PPP projects.

(iii) India Infrastructure Finance Company Ltd (IIFCL): It provides long-term debt for financing infrastructure projects that typically involve long gestation periods since debt finance for such projects should be sufficient to meet the requirements.

(iv) Foreign Direct Investment (FDI): Up to 100 per cent FDI in equity of special purpose vehicles (SPVs) in the PPP sector is allowed on the automatic route for most sectors.The proposals shall include the requisite information necessary for satisfying the eligibility criteria.

Contribution of PPP: It is pertinent to note that PPPs have contributed towards the growth and development of the Indian economy in multiple ways. For example, several airports including Mumbai airport and the T3 of Delhi airport are built on the PPP model. The PPP has seen several successful infrastructural projects over the past decade.

It has rightly been observed that "selection of right PPP model for a right project at a right time through realistic planning would go a long way in providing meaningful and hassle free infrastructure development. This will ultimately increase the infrastructure standards and thereby sustain the overall macroeconomic developments of the country" (Lakshmanan, 2008).

Aman Hans (2017), a NITI Aayog specialist in PPP has pointed out that "a mature PPP framework, along with a robust enabling ecosystem shall enable the Government to accomplish to a considerable extent that "the government has no business to do business". Thus promote private sector investments and participation towards the nation building". PPP is emerging as the new success route in India's attempts to build world-class infrastructure. The prospect of future investments is bright because PPP investments are being pulled by increased demand for infrastructure services.

Challenges before PPPs

A number of negativities have surfaced in the forms of various bottlenecks and challenges. In India challenges arise from overextended balance sheets, contract disputes, land acquisition problems, and lack of a dispute-resolution mechanism. Ray(2014) and Khan (2021)both have highlighted the following challenges:

(i) As with any situation where ownership and decision rights are separated, public-private partnerships can create complex principal-agent problems.

(ii) Regulatory Approvals for Projects: The key execution challenges during construction project that developer's face include: acquisition of land and right of way, securing necessary clearances, and financial closure.

(iii) Project authorities are finding it difficult to implement initiatives that are afflicted by higher cost inflation and/or unrealistic estimates of streams of expected revenue.

(iv) Some approved projects get delayed or abandoned because investors cannot secure financial closure due to their unrealistically aggressive bids.

(v) The most important challenge before state governments is to develop well-designed PPP projects in social infrastructure so that private investors, including NGOs, are sufficiently motivated to invest.

(vi) Changes in the PPP model during execution: Given the long-term nature of these projects, it is difficult to identify all possible contingencies and issues that may come up during project development. The parties may not have anticipated these contingencies when the contract was signed.

(vii) It is also possible that some of the projects may fail or may be terminated prior to the projected term of the project. The reasons may be changes in government policy, failure by the private operator or the government to perform their obligations, or due to external circumstances.

(viii) In certain cases, environment and social considerations are also important. These issues can become very complicated and politically challenging.

Way Forward

To develop the PPP projects in India, the Kelkar Committee (2015) recommended that:

(i) PPPs should not be used by the government to evade its responsibility for service delivery to citizens.

(ii) This model should be adopted only after checking its viability for a project, in terms of costs and risks. PPP structures should not be adopted for very small projects, since the benefits are not commensurate with the costs.

(iii) PPP must not be a short cut only to save money or bridge fiscal gaps or transfer risks. It should be used to improve service quality or bring efficiency improvements.

(iv) The prevention of Corruption Act, 1988 should be amended to distinguish between genuine errors in decision making and acts of corruption by public servants.

The committee has emphasised that India's success in deploying PPPs as an important instrument for creating infrastructure will depend on a change in attitude and in the mind-set of all authorities dealing with PPPs. The public agencies partnering with the private sector, government departments supervising PPPs, and auditing and legislative institutions providing oversight of PPPs should have positive attitude towards PPPs.

Check your progress III

1) What do you mean by Public-Private Partnerships?

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2) Indicate three rationale of Public-Private Partnership.

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3) Explain three areas where PPP is desirable?

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4) Write three incentives which government provide for having PPP in India?

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5) Write three recommendation of Kelkar committee for improving working of PPP in India?

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15.8 LET US SUM UP

The private sector consists of all privately owned, for-profit businesses in the economy. It is a major part of the economy and encompasses all for-profit businesses that are not owned or operated by the government. The private sector is the main provider of goods and services. Companies and corporations that are government run are part of what is known as the public sector. Private sector businesses can also collaborate with government run agencies in arrangements called public-private partnerships (PPPs).

Public sector is mainly concerned with public goods which are commodities or services that benefit all members of society, and which are often provided for free through public taxation. Public goods are the opposite of private goods, which are inherently scarce and are paid for separately by individuals. A public enterprise primarily focuses on providing cheaper goods and services to the general people. It includes: central government bodies, state government entities and even local government authorities. Public sector can be broadly divided into two sections depending on its government control. Financed entirely by a government body and more than 51 percent share capital of an enterprise is owned by a government entity.

As opposed to the public sector that the government operates, the primary objectives of the private sector are profit maximization and acting in the best interest of the stakeholders. Although focused on profit maximization, private firms help in economic development by enhancing the GDP, employment, per capita income, infrastructural facilities, etc.The sector plays a crucial role in economic development. India's private sector has been the major engine of growth and employment generation.

Since 1991, India has adopted the policy of privatisation through which private sector is gaining importance and is progressing faster. As compared to private, public sector has number of limitations.

Given the pressure of funds on central, state, and local governments, they have increasingly turned to public-private partnerships, or P3s, as a means to solve problems. PPP is recognized as an effective way of delivering value-for-money public infrastructure or services. For looking at various aspects of PPP, the PPP cell was set up in 2006 under department of economic affairs.

PPPs combine the professionalism of the corporate sector with the welfare objectives of the state. The PPPs have resulted in projects which are known for their world class facilities and advanced amenities.

Public-private partnerships (PPPs) have played a vital role in spurring economic growth in India. Regardless of which political party has been at the helm, public-private partnerships have had a reasonable success rate in India. Public-private partnerships in India have integrated public infrastructure with the superior financing and maintenance provided by private enterprises. This has led to the development of many good airports and buildings across India.

15.9 KEY TERMS

Build, Own, Operate, Transfer (BOOT): Is a project model in which a private organization conducts a large development project under contract to a public-sector partner, such as a government agency. A BOOT project is often seen as a way to develop a large public infrastructure project with private funding. Variations on the BOOT model include BOO (build, own, operate), BLT (build, lease, transfer) and BLOT (build, lease, operate, transfer).

Build-Operate-Transfer (BOT): In a BOT project, the public sector grantor grants to a private company the right to develop and operate a facility or system for a certain period. Operator finances, owns and constructs the facility or system and operates it commercially for the project period, after which the facility is transferred to the authority. In a BOT the project company or operator generally obtains its revenues through a fee charged to the utility/ government rather than tariffs charged to consumers.

Free Rider: Is a failure of the conventional free market system that occurs when those who benefit from resources, public goods, or services do not pay for them or under-pay. The problem occurs when some members of a community fail to contribute their fair share to the costs of a shared resource. The free rider problem is the burden on a shared resource. The failure to contribute makes the resource economically infeasible to produce. Thus, the good may be under-produced, overused or degraded.

Principal-Agent Problem: This problem can occur in government when officials have incentives to act in their own interests rather than as agents for the people, who are the principals. Elected officials, unelected officials, and lobbyists all face different pressures to act against the public interest. Sometimes, principal-agent problems occur because government officials lack the knowledge to act effectively as agents for the people. Principal-agent problems in government can be reduced by changing incentives to minimize conflicts of interest.

15.10 TERMINAL QUESTIONS

1. Analyze the role and contribution of public sector in Indian economy. What are the challenges before public sector?
2. Does more job creation come from public or private sector? Which sector is best for job creation?
3. Why is private sector growing fast since 1991 in Indian economy? Highlight its contribution in recent years.
4. How Do Governments and the Private Sector Cooperate? Why does India need a public-private partnership policy?

5. Discuss the different models of PPP adopted in India. Describe the challenges and how to go forward with PPP in India.

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UNIT 16 MICRO, SMALL AND MEDIUM ENTERPRISES

Structure

16.0 OBJECTIVES

After going through this unit, you will be able to:

- Explain the meaning and definition of MSME;
- Describe the opportunities provided to MSMEs;
- Identify the challenges faced by MSMEs in the country;
- State the problems of MSMEs;
- Discuss the role of MSMEs in propelling economic development; and
- Describe the present status of MSMEs in the country

16.1 INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) occupy an important place in both developed and developing countries of the world. They are helping in achieving the important goals of an economy viz., poverty alleviation, economic growth, employment creation, reduction in income and gender inequalities, prevention of migration from rural to urban areas etc. Recognizing the contribution of the MSMEs, the United Nations declared 27th of June of every year as MSME day. In spite of the several initiatives by the government in providing financial assistance, technology assistance and upgradation, infrastructure development, skill development and training, enhancing competitiveness and market assistance to help the growth of MSMEs in the country, they still face several challenges. These challenges include:infrastructure bottlenecks, availability of finance,

marketing of products, procurement of inputs, timely payment of dues by creditors etc. In this Unit, you will learn the definition of MSMEs, opportunities provided by the Government to promote the growth of MSMEs in the country, challenges faced by the MSMES and the present status of MSMEs in the country. You will be further apprised with the problems and role of MSMEs in probelling economic development.

16.2 DEFINITION OF MSME

The MSME is largely used to describe a small business in the private sector. The World Bank has identified three criteria viz., number of employees, asset size and annual sales for defining MSME. If a business unit satisfies at least two of the three criteria it is recognized as MSME by the World Bank. The table 1 provides the three criteria based World Bank definition of MSME.

Table 1: World Bank Definition of MSME

Enterprise size	Employees	Assets (US $)	Annual Sales (US $)
Micro	10	10000	10000
Small	50	3 mn.	3 mn.
Medium	300	15 mn.	15 mn.

In our country, prior to 2006, the definition provided by the Industrial Development and Regulation (IDR) Act, 1951was adopted to identify small industries. They included tiny, cottage, traditional, and village enterprises. They were collectively termed as Small Scale Industries (SSIs) under the Act.They were defined in terms of "number of employees". But the government experienced difficulty in collecting reliable data on the number of employees. Hence,the MSME Development Act 2006 (MSMED) took investment as a criterion for defining the MSMEs. This was because it was relatively easy to measure and verify investment. According to a report published in 2014, there were267 definitions of the MSMEs in 155 economies. However, about 90 percent of the institutions across the world take number of employees as the basis for defining a MSME. Many other definitions are based on turnover and value of assets. The other variables considered for defining a MSME include loan size, years of experience, type of technology, size of the manufacturing space, and initial investment amount etc.The table 2 shows the Indian definition of MSME as per MSMED Act, 2006.

Table 2: Definition of MSME (MSMED Act.)

Initial investment in Plant and Machinery (in Rs.)			
Category/ Enterprise size	Micro	Small	Medium
Manufacturing	<25,00,000	25,00,000 to 5,00,00,000	5,00,00,000 to 10,00,00,000
Services	<10,00,000	10,00,000 to 2,00,00,000	2,00,00,000 to 5,00,00,000

Thus, the MSMED act. distinguished between manufacturing enterprise and service enterprise while defining a MSME. The investment limit for recognizing an enterprise under MSMEs was less for service providers as compared to manufacturers.The RBI in its "Report of the Experts Committee on MSMEs, 2019" observed that the definition based on investment limits in plant and machinery/ equipment which were decided in 2006 does not "reflect the current increase in price index of plant and machinery/equipment".To their small scale

of operations and informal organisation, MSMEs do not always maintain proper books of accounts. This essentially results in their not being classified as MSMEs.

Accordingly, the government amended the MSME definition by adopting composite criteria of classification for manufacturing and service units. According to the new definition of MSMEs, there will be no difference between manufacturing and service sectors. Further, a new criterion of turnover has been added in the previous criteria of classification which was based only on investment in plant and machinery. Thus, the new definition of MSMEs is as follows:

(i) A micro enterprise, where the investment in plant and machinery or equipment does not exceed one crore rupees and turn over does not exceed five crore rupees;

(ii) A small enterprise, where the investment in plant and machinery or equipment does not exceed ten crore rupees and turn over does not exceed fifty crore rupees; and

(iii) A medium enterprise, where the investment in plant and machinery or equipment does not exceed fifty crore rupees and turnover does not exceed two hundred and fifty crore rupees.

Look at table 3 for revised definition.

Table 3: MSMED Act Revised Definition of MSME w.e.f.1.7.2020

Initial investment in Plant and Machinery (in Rs.)			
Investment and Turnover	Micro	Small	Medium
Investment in Plant and Machinery or Equipment (Rs.)	<1,00,00,000	<10,00,00,000	<50,00,00,000
Turnover excluding exports (Rs.)	<5,00,00,000	<50,00,00,000	<250,00,00,000

In brief, the amended definition of MSMEs has not shown any distinction between manufacturing and service providing enterprises. Further, a new criteria turnover is added to the definition. Furthermore, the new definition significantly enhanced the limit of investment in plant and machinery for recognition of MSMEs.This amendment to the definition of MSME is helpful in many ways. The Government felt that the MSMEs including even the very successful ones were not making attempt to grow for the fear that if they outgrow the size of what is defined as the MSME,they would lose the benefits that they get. Therefore, MSMEs preferred to remain within the definition rather than grow. This is preventing them from reaping the benefit of economies of scale. Hence, the revision of definition would shed the fear and help the enterprise to grow and realize the advantages of economies of scale. The removal of distinction between manufacturing and service sector is done to facilitate the ease of doing business. This definition helps businesses such as retail to claim the benefits of MSME.There is no need for any MSME to prove that it is basically a manufacturing unit to claim the benefits. Inclusion of the criteria of turnover in the recognition of MSME is also done with a purpose. Currently there is no check on the investment in plant and machinery claimed by an enterprise and is based on self-authentication. With the definition requiring turnover, firms would need to register on GST thereby making them eligible for the scheme. Hence, the additional inclusion of turnover may help in bringing in better authentication of the MSME.The Government decided not to count the turnover with respect to exports in the limits of turnover for any category of

MSME units whether micro, small or medium. This is yet another step towards ease of doing business.

16.3 FEATURES OF MSMEs

MSMEs exhibit special features which are distinct from large enterprises. Some such features are discussed in this section.

(i) Limited Investment:In MSMEs, particularly micro and small enterprises, capital is supplied by an individual or a small group of individuals. As per a census of small scale units in India, micro and small business enterprises are run mostly as sole- proprietorship or partnership model.

(ii) Personal Character/Owner-Management:A micro and small businesses are identified with its owners; who themselves act as managers. Managers as such have maximum motivation to work; as they themselves happen to be the owners also.

(iii) Labour-Intensive:Micro and small enterprises are fairly labour intensive with comparatively smaller capital investment than the larger units. With any given investment, employment possibilities would be greater in comparison with corresponding factory system.

(iv) Unorganized Labour:Micro and small business enterprises employ less number of workers as compared to big business enterprises. Workers of these units do not form labour unions and remain unprotected.

(v) Local Area of Operations:The area of operations of micro and small enterprises is generally local as they have less capital and less marketing facilities at their disposal. There is a local touch between employer and employees and between employer and customers. These days products of some small scale enterprises are also exported to many countries of the world.

(vi) Flexibility: MSMEs are more adaptable to the changing business environment. So in case of amendments or unexpected developments, they are flexible enough to adapt and carry on, unlike large industries.

(vii) Use of Local Resources: Micro and small business units use indigenous resource. As a result they can be located anywhere subject to the availability of these resources like raw materials, labour etc.

(viii) Gestation Period: Compared to large units, a micro industrial unit has a lesser gestation period, i.e. the period after which the return on investment starts.

(ix) Sustainable Development Goals (SDGs): MSMEs are best suited as compared to large enterprises for achieving the SDGs such as creation of employment to lift people out of poverty.

16.4 GOVERNMENT SUPPORT TO MSMEs

India is one of the fastest growing economies of the world. In the last half-decade, India has been witnessing a respectable rate of economic growth. This growth has been driven by many factors such as i) robust socio-economic policies of the government; ii) an influx in the domestic and foreign capital;iii) rise in disposable income; iv) increasing consumption etc. among many other positive attributes. MSME sector is likely to continue to play a significant role in the growth of the Indian economy. In the last ten years, MSME sector has shown impressive growth in terms of parameters like number of units, production, employment,

and exports. Given the right set of support systems and enabling framework, this sector can contribute much more, enabling it to actualize its immense potential.

MSME sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last six decades. It created more than 11 crore employment opportunities and has the potential to create more at a lower capital cost as compared to large industries. It also helps in industrialization of rural and backward areas. This may result in reducing regional imbalances and more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units. The MSME sector contributes enormously to the socio-economic development of the country. Ministry of MSME envisions a vibrant MSME sector by promoting growth and development of the MSME sector, including Khadi, Village and Coir Industries. This is done in cooperation with concerned Ministries/Departments, State Governments and other Stakeholders.

The government is providing support to existing enterprises and encouraging creation of new enterprises through many initiatives which can broadly be classified into information technology initiatives, credit support initiatives and skill development initiatives. These initiatives provide lot of opportunities to MSMEs to start new business and continue existing businesses in an efficient manner.

16.4.1 Information Technology(IT) Initiatives

Governmenthas taken several IT initiatives to facilitate the ease of doing of business of MSMEs. Some of the initiatives are as follows:

MyMSME: One of the complaints of the MSME units pertains to availability of information on the government schemes for the sector at one place. MyMSME is a mobile application that provides information on all schemes implemented by the Ministry of MSME at one place. The MSMEs can apply for any of these schemes through this application. They can also lodge grievances pertaining to Ministry of MSME through this app.

MSME SAMBANDH: The Public Procurement Policy for Micro and Small Enterprises (MSEs) order 2012 has mandated every Central Ministry/Department/ PSU to set an annual goal for procurement from the MSME sector at the beginning of the year. This is done with an objective of achieving an overall procurement goal of minimum 25 per cent of the total annual purchases from the products or services produced or rendered by MSEs. Out of 25% target of annual procurement 4% is exclusively reserved for MSMEs owned by SC/ST and 3% for MSEs owned by Women entrepreneurs. In order to make the Public Procurement Policy more effective, a Public Procurement Portal "MSME SAMBANDH" was launched on 8th December, 2017. The Portal tracks the procurement made by CPSEs from MSEs including SC-ST MSEs on a quarterly basis. It contains the necessary information relating to the requirement of CPSEs in terms of items required, quantity, specifications, last purchase price etc. Hence, the portal helps in effective monitoring while also enabling MSEs to build their capacities and participate in Public Procurement market.

MSME SAMADHAN: MSMED Act, 2006 contains provisions to deal with cases of delayed payment to Micro and Small Enterprises (MSEs). As per the provisions, the buyer is liable to pay compound interest with monthly rests to the supplier on the amount at three times of the bank rate notified by Reserve Bank. This provision is applied in case he does not make payment within 45 days of acceptance of the goods/service. The Ministry of MSME has launched MSME

Delayed Payment Portal –MSME SAMADHAN for empowering MSEs across the country to directly register their cases.

Udyam: Due to non-registration, the government was not able to collect quality data on MSMEs and it became a serious constraint in passing on the benefits of welfare measures to all the MSMEs. Many MSMEs were hesitant to register themselves with the government due to a lengthy registration process. To overcome this, the government introduced a single page Udyog Aadhaar Memorandum (UAM) equivalent to the previous 11 forms protocol for self-certification of the MSMEs. The registration process under UAM was completely paperless (online). After completing the registration, the applicant was able to receive a unique Udyog Aadhaar Number (UAN). This UAN was an identification number that can be used in applications of all MSME schemes. More than 8.6 million (as of January 2020) units were registered under the scheme. Along with the change in the definition of MSMEs based on investment and turnover the government changed the registration procedure from UAM to Udyam. With the new classification, any new person setting up an MSME has first to be registered under the Udyam Registration and do a self-declaration regarding the size of the business they conduct. The new Udyam Registration can be filed online with no requirement to upload any documents, certificates, papers, or proof. Few salient points of registration are as follows:

1. The new classification of MSME has been to include both Manufacturing and Services and the criteria for division of Micro, small and medium enterprises relates to both Turnover and Investment.
2. Any person who intends to set up an MSME should file Udyam Registration in Udyam Registration Portal based on self-registration.
3. E-Certificate will be issued after the registration is completed.
4. Businesses will be automatically upgraded or degraded from one classification to another based on their filing.
5. All units having multiple GST under single PAN shall be considered as one Enterprise / Udyam.
6. Calculation of investment in Plant and Machinery be based on previous ITR filed.
7. Calculation of turnover shall be based on GST filed or on a self-declaration basis if GST is not there.
8. No fees is charge for registration.
9. Aadhar Number is Mandatory for filing Udyam (of Proprietor, Managing Partner for Partnership, Karta for HUF) and for Companies GSTIN is required.
10. Self-declaration to be given where necessary information is not available via other sources i.e. GST, PAN, Aadhar, etc.

Benefits of MSME Registration

Some of the benefits to registered MSMEs provided by the government include:

1. **Collateral free loans:** The purpose of the coverage of Collateral Free Loans (CGTMSE)is to provide collateral free loans up to Rs. 200 lakhs (Up to Rs. 100 lakhs for Retail Trade) to Micro and Small Enterprises, as defined under MSMED Act. The coverage of the Scheme is extended to all new and existing Micro and Small Enterprises (both in the Manufacturing Sector

as well as in the Service Sector) as defined under MSMED Act, 2006. The Central Government provides guarantee to these loans.

2. **Equity infusion through MSME Fund of Funds:** MSMEs are facing a severe shortage of equity. The Funds created by the Central Government provides equity funding for MSMEs, which have growth potential and viability. This scheme is expected to facilitate equity financing of Rs.50,000 crores in the MSME Sector.

3. **Subordinate debt for MSMEs:** Credit Guarantee Scheme for Subordinate Debt (CGSSD)aimed at providing personal loans through banks to MSME promoters for infusion as equity or quasi-equity. The scheme had targeted to support 2 lakh Covid-hit MSMEs that are stressed and NPA accounts as of April 30, 2020, that are eligible for restructuring. Subordinate debt means unsecured debt.

4. **Guaranteed Emergency Credit Line (GECL) facility to MSME borrowers, including interested MUDRA borrowers:** The Scheme aims at mitigating the economic distress being faced by MSMEs by providing them additional funding up to Rs. 3 lakh crore in the form of a fully guaranteed emergency credit line. The main objective of the Scheme is to provide 100 per cent guarantee Member Lending Institutions (MLIs), i.e., Banks, Financial Institutions (FIs) and Non-Banking Financial Companies (NBFCs) for any losses suffered by them due to non-repayment of the GECL funding by borrowers.

5. **Special concessions during registration of Enterprises on Government e-market portal:** The objective of Policy is promotion and development of Micro and Small Enterprises by supporting them in marketing of products produced and services rendered by them. Under the Scheme:

   i. Every Central Ministry /Department / PSUs shall set an annual target for 20% procurement from MSME Sector with a sub-target of 4% to MSMEs owned by SC/ST entrepreneurs.

   ii. Tender sets free of cost and exemption from payment of earnest money to registered MSMEs.

   iii. MSEs are given price preference in procurement of up to15% over other competitors.

   iv. 358 items are reserved for exclusive procurement from MSMEs.

   v. Ministry /Department/CPSUs shall prepare their annual procurement plan to be uploaded on their official website.

   vi. For enhancing participation of MSMEs in government procurement, Ministry /Department/CPSUs shall conduct Vendor Development Programmes or Buyer Seller Meets for MSEs especially for SC/ST entrepreneurs.

6. **Special consideration in international trade fairs:** The Government of India will reimburse 75% of air fare by economy class and 50% space rental charges for MSMEs of General category entrepreneurs. Further the reimbursement of 100% of space rent and economy class air fare are provided to women/SC/ST and North Eastern Entrepreneurs participating in international trade fairs.

7. **Bar Code registration subsidy:** The Central Government reimburses all Registered MSMEs 75% of the barcode registration fees. Besides, they will also be reimbursed 75% of the annual Barcode renewal fees for the first 3 years.

8. **Subsidy on NSIC Performance and Credit ratings:** The National Small Industries Corporation (NSIC) credit rating scheme for performance and credit rating helps MSMEs to get an independent, trusted credit rating agency opinion on their capabilities and credit-worthiness. The rating makes credit available at attractive interest rates. This also enables MSMEs to get recognition in global trade. Further, it ensures prompt sanctions of credit from banks and financial institutions. The rating of MSMEs is done at subsidized fee structure. The rating also facilitates vendors/buyers in their capability and capacity assessment and also enables the MSMEs to ascertain the strengths and weaknesses of their existing operations and take corrective measures.

   i. Protection against delay in payment
   ii. Reduced rate of interest from banks
   iii. Concession in electricity bills
   iv. Reimbursement of ISO Certification expenses
   v. Preference in procuring Government Tenders
   vi. Subsidy for patent registration

16.4.2 Credit Support Initiatives

One of the key aspects of MSMEs is access to credit. MSMEs require credit to establish/expand the business. To provide credit facilities to the MSMEs, the Government of India has come up with many schemes. Some of the well recognised MSME loan schemes of 2020 are as follows:

Pradhana Mantri Mudra Yojana: The Pradhan Mantri Mudra Yojana (PMMY) scheme was launched on 8th April 2015. This scheme provides loans up to 10 lakh to non-corporate and non-farm small or micro-enterprises. These loans are known as MUDRA (Micro Units Development and Refinance Agency Limited). MUDRA provides refinance to banks, microfinance institutions (MFIs) and NBFCs for lending loans. The borrowers can approach any of these lending institutions directly or apply online through the Udyami Mitra portal for these loans. There are three different schemes viz., 'Shishu', 'Kishore' and 'Tarun' under Mudra which signify the stage of development and the funding need of the beneficiaries. 'Shishu' offers loans up to Rs.50,000, 'Kishor' provides loans above Rs.50,000 up to Rs.5 lakhs and 'Tarun' provides loans above Rs.5 lakhs up to Rs. 10 lakhs to micro-units.

Prime Minister's Employment Generation Programme (PMEGP): PMEGP is a Government of India's credit-linked subsidy programme introduced in the year 2008. The scheme is designed by merging Prime Minister's Rojgar Yojna and Rural Employment Generation Programme. The programme focuses on generating self-employment opportunities among unemployed youth and traditional artisans through micro-enterprises in non-farm sector. The PMEGP Scheme is being implemented by Khadi and Village Industries Commission (KVIC) at the national level and the Directorates of KVIC and DICs and Banks at the State level. The maximum cost of the project/unit admissible in the manufacturing sector is Rs.25 lakhs and in the service sector is Rs.10 lakhs. Assistance under the scheme is available only to new units. The subsidy under the scheme is 25% of the cost of

the project in rural areas and 15% in urban areas for general category. Similarly the subsidy is 35% of the cost of the project in rural areas and 25% in urban areas for special category beneficiaries.

Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE): Ministry of MSMEs and Small Industries Development Bank of India (SIDBI) jointly established the CGTMSE by contributing corpus of about Rs.27,000 crores in order to implement a credit guarantee scheme for MSMEs. The trust provides guarantee to the loans provided to MSMEs by banks without any third-party guarantee or collateral. The guarantee coverage under this scheme ranges from 85% for Micro Enterprise (up to Rs 5 lakh), 75% for others and 50% for retail activity. Both existing and new enterprises are eligible under the scheme. The maximum limit of loan under the scheme is Rs.2 crores. In case of default, the trust settles the claim up to a maximum of 85% of the amount in default of the credit facility not covered by primary and collateral security. The main objective is that the lender should give importance to project viability and secure the credit facility purely on the primary security of the assets financed. The other objective is to provide both term loan and working capital facilities from a single agency to the borrower.

Credit Linked Capital Subsidy Scheme (CLCSS): The objective of the Scheme is to facilitate technology up-gradation in MSMEs. Under the scheme an upfront capital subsidy of 15 per cent on institutional finance of upto Rs 1 crore availed by the MSMEs for induction of well-established and improved technology in the specified 51 sub-sectors/products is approved. In other words, the major objective is to upgrade their plant & machinery with state-of-the-art technology, with or without expansion to the existing enterprises. The scheme is also applicable to new MSMEs which have set up their facilities with appropriate eligible and proven technology duly approved under scheme guidelines.

Thus, the government has been helping the MSMEs to get institutional credit either directly from the financial institutions, guaranteeing the repayment of loans taken by the MSMEs from the financial institutions. MSMEs are provided subsidy on the loans taken and capital subsidy for upgrading technology.

16.4.3 Skill Development

The Government through its agencies organize various Entrepreneurship promotion and development Programmes (ESDP) to nurture the talent of youth by enlightening them on various aspects of industrial/business activity required for setting up MSEs. These programmes are also organized in ITIs, Polytechnics and other technical institutions/business schools, where skill/talent is available to motivate them towards self-employment. The following activities are conducted under the ESDP Scheme:

(i) **Industrial Motivation Campaigns (IMCs):** Two days Industrial Motivation Campaigns are organized to identify and motivate traditional / non-traditional entrepreneurs having potential for setting up MSEs for making them self-employed.

(ii) **Entrepreneurship Awareness Programmes (EAPs):**Entrepreneurship Awareness Programmes are being organized regularly to nurture the talent of youth by enlightening them on various aspects of industrial activity required for setting up MSEs. These EAPs are generally conducted in ITIs, Polytechnics and other technical institutions, where skill is available to motivate them towards self-employment. The course contents of such

Entrepreneurship Awareness activities are designed to provide useful information on product/project, selection and project profile preparation, marketing avenues/ techniques, product/service pricing, export opportunities, infrastructure facilities available, financial institutions, cash flow, accounting product casting etc.

(iii) **Entrepreneurship-cum-Skill Development Programme (E-SDP):**These Comprehensive training programmes are organized to upgrade skills of prospective entrepreneurs, existing workforce and also develop skills of new workers and technicians of MSMEs. This is done by organising various technical cum skill development training programmes. The objective is to provide training for their skill upgradation and to equip them with better and improved technological skills of production. The specific tailor made programmes for the skill development of socially disadvantaged groups (SC/ ST, PH and women) are organized in various regions of the states, including the less developed areas.

(iv) **Management Development Programmes (MDPs):-** The objective of MDPs is to impart training on management practice system to improve the decision-making capabilities of existing & potential entrepreneurs. This will result in higher productivity and profitability. Inputs on a variety of topics of managerial functions are provided to the participants in short duration training programmes. These programmes are of short duration and the curriculum is designed based on the needs of the industry and are customized, if required by the clients themselves.

Check your progress A

1) What is the present definition of MSME in India?

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.....

2) State the procedure for registration of a MSME

.....

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.....

3) Match the following:

A. MSME Sambandh	a. Payment issues
B. MSME Samadhan	b. Registration
C. Udyam	c. Credit
D. PMMY	d. Procurement

4) State whether the following statements are **True** or **False**:

1. The Industrial Development Act distinguished between Micro, Small and Medium Enterprises.
2. The present MSME definition distinguishes between manufacturing and Service enterprises.

3. The Credit Linked Capital Subsidy Scheme is aimed at technology up-gradation in MSMEs.
4. Among the skill development programmes, the duration of the Employment-cum-Skill Development programme is the longest.
5. CGTMSE is aimed at providing loans to MSMEs without any guarantee.

16.5 CHALLENGES IN GROWTH AND DEVELOPMENT OF MSME SECTOR IN INDIA

The growth and contribution of MSME sector in India has not been to the desired extent due to several challenges faced by the sector. Some of the major challenges as pointed out by the expert committee of RBI on the MSME sector are as follows:

Inadequate Policy and Institutional Interventions:There are many institutions in India to support and help the MSME sector.The Ministry of MSME formulates policies for overall growth of the sector. The Office of Development Commissioner MSME implements these policies. As mentioned earlier, MSMED Act, 2006 contains several provisions for the promotion and development of the MSME sector. For financing MSME the central government established Small Industries Development Bank of India (SIDBI). Broad policies for facilitating financial support to MSMEs are formulated by RBI and Securities Exchange Board of India (SEBI).However, there are no clear cut policies to address the problems of the sector in the following areas:

a) **Infrastructure development:** Due to infrastructural bottlenecks the MSMEs are not able to compete with large industry in the domestic sector and also not able to enter global markets. The basic amenities such as work sheds, tool rooms, product testing laboratories, electricity, rural broadband and innovation hubs are not adequately available to the MSMEs. This is acting as a deterrent to the growth of the sector. The development of MSME clusters is done mainly by Government organizations and the private investment is not coming for the development of these clusters.

b) **Formalization of the sector:** As per 73rd round of National Sample Survey (NSS), there are 63.39 million MSMEs in the country. However, a large number of MSEs exist in the informal sector and are not registered with any statutory authority. Reasons for lack of registration are many and varied. For nano/household type of enterprises, in their view, not obtaining registration is an escape from official machinery, paperwork, costs etc. For them, it is perhaps "the art of not being governed". Registration offers them little by way of tangible benefits. There are other MSMEs who, upon reaching a minimum size seek legitimacy and acknowledgement of their existence to seek benefits or credit. While Udyog Aadhaar offers a simple mode of registration, it is usually not enough. Often, more is needed e.g., Shops and Establishments, PAN, GST, etc. Lack of formalization impacts the sector in terms of development. It also impacts in availing credit from financial institutions like banks and in terms of policy making as well as development interventions. Registration provides information on nature of business, location, segmentation, etc. In the absence of a robust system of registration for capturing information on operational units, new units and exits, reliance has to be placed on proxy data or on national census/ surveys, which are infrequent.

c) **Technology adoption:** Many MSMEs are not able to adopt new technologies due to paucity of funds. This has been adversely affecting the competitiveness of these units both in domestic and international markets.

d) **Backward and forward linkage:** MSMEs face the challenges both in having access to quality raw material and market for finished products. National Small Industries Corporation (NSIC) through market assistance scheme facilitates MSMEs to discover markets for their products.The Government e-Marketplace (GeM) portal has enabled MSMEs to connect with buyers from Public Sector Undertakings (PSUs) and Government Departments. However, very few MSMEs are availing benefits under these schemes. MSEs find it difficult to access proper market for selling their products due to their lack of scale and in-house capabilities. Inaccessibility to remunerative market affects their growth and sustainability. In order to support MSMEs in selling their products at a competitive price, Public Procurement Policy for MSMEs was introduced in the year 2012. The policy was revised in November, 2018, and came into effect from April 1, 2019. The objective of Policy is promotion and development of MSMEs by supporting them in marketing of their products and services. However, complexity of the public procurement system and its process deters MSMEs to participate in public procurement. MSMEs face constraints in terms of financial, technical and administrative capacities to access procurement opportunities, prepare tender documents, apply the procedures and execute the contracts.

e) **Credit gap:** Due to non-registration, many MSMEs lack access to formal credit. Further, banks face challenges in credit risk assessment of MSMEs as these units do not have financial information, historical cash flow data etc. Further, very few MSMEs are able to attract private equity support and venture capital financing.

f) **Timely payments to MSMEs and their effective implementation:** Most MSMEs have been facing problems of working capital due to non-payment of dues by the customers. Though the Government initiated several steps to address this problem, problems still exist in implementation of these initiatives. Buyers tend to use MSMEs as an alternative to banks. In order to delay payments, buyers raise objections or point errors in submitted bills. Credit notes or adjustment notes are often used to avoid cash payment. Strict legislative measures of payments within fixed days (and penalty in the form of charging interest) have had limited effect as MSMEs do not complain for fear of loss of future business. Electronic bill discounting systems (such as TReDS) have provided a partial solution but the problem persists.

g) **Availability of authentic data at one place on MSMEs:** Implementation of Goods and Services Tax (GST) has made turnover data available at a single network about MSMEs registered under GST. However, this data alone is not sufficient to identify a MSME. The data on investments in plant and machinery is not available in GST network. Income tax data base contains only information relating to financials of the units. Udyam portal contains only registration related information of MSMEs. There is no single interface available for the lenders to access and map data on MSMEs. In the absence of authentic source of data on MSMEs, the lenders have to primarily rely upon manual information furnished by the units.

h) **Imperfectinformation andcapacitygaps:** Entrepreneurs and MSMEs suffer from lack of information including market information. Many entrepreneurs

and MSMEs also struggle to find the support needed to strengthen their business management, marketing, record and book keeping, strategic and financial planning to be able to grow, gain market share and also handle shocks. Lack of professional business management skills may further limittheir capacity to adopt research and development (R&D) and innovation in promoting productivity. This would ultimately affect growth of MSMEs.

i) **Access to basic in frastructure:** Access to basic infrastructure is one of the important challenges faced by MSMEs. Since MSMEs have limited financial means, good basic infrastructure is important to MSME business operations. Access to a stable electricity supply, road networks, ports and airports, water supply, as well as Information Communication and Technology (ICT), and in particular, broadband internet, isimportant to fostering development and reducing the challenges that MSMEs already face in growing their businesses. Access to ICT and digitalization canbe very important to allow MSMEs to improve informational,capacity and fill financegaps.

j) **Entrepreneurship and Women Entrepreneurs:** Fostering the capacity of women entrepreneurs and business owners has asignificant potential to reduce poverty and inequality globally. According to UN, the global economy could see as much as US$ 28 trillion growth by 2025, if women participate equally as men in entrepreneurship. Unfortunately, women MSME entrepreneurs, particularly those from rural poor communities, are often in a disadvantaged position in growing their business. They lackland documents in their name and/or collateral needed to access formal sources of credit.

Thus, many governmental interventions are mostly supply-side oriented. They are not able to effectively address the whole requirements of MSMEs.

16.6 PROBLEMS OF MSMEs

The growth of the economy is dependent considerably on MSMEs which contribute significantly to the GDP by generating mass employment in every nook and corner of India. In view of its significance, the government is expected to provide adequate support to ensure MSMEs' growth. However, the MSMEs suffer with the following problems:

1. **Ease of doing business remains a bottleneck:** Most MSMEs in India face problems in the initial stages because of too many regulations and approvals. They face problems relating to loan, enforcing contracts and dealing with construction permits. In fact, the time taken by businesses to enforce a contract remains longer. Entrepreneurs have to comply with 12 procedures to start a business in Mumbai, whereas globally there are just five procedures to comply with on an average.

2. **Lack of financial expertise:** A large number of entrepreneurs lack the financial knowledge to steer the business in the right direction. Those entrepreneurs without sound financial knowledge may not be in a position to make crucial business decisions related to MSME loans. In absence of financial knowledge, you may end up taking wrong decisions that may cost the business unless you are seeking any external advice. Also, the knowledge about finance is important because you have to rely on an MSME loan to tide over crises that may knock at the door anytime. Hence, it is important to understand everything related to MSME loans, find out about the MSME loan interest rate and compare the same in the market before availing a loan.

3. **Lack of Access to Financing Solutions:** Most businesses face perennial problems of accessing finance or availing an MSME loan even as the government has implemented measures to make credit for businesses readily available to foster entrepreneurship. The regulatory loopholes that cause a delay in getting licenses, insurance, and certifications also hamper the prospects of MSMEs. Most businesses face problems related to manufacturing, timely purchase of raw materials, or even access to new technologies or acquire new skills due to lack of funding. Another major problem is the economic slowdown that has led to liquidity crunch, but the government had given a breather to MSMEs by asking banks not to declare any stressed loan account of MSMEs as NPA till March 2020 and work on recasting their debt.

4. **Technology remains a major deterrent:** Most businesses fail to reap the benefits of the latest technological developments in their sector due to a lack of expertise and awareness. Hence MSMEs need to be apprised of the technological developments that are significant for the growth of their businesses. It is important for scientific research bodies to remain involved with the local MSME clusters, and take notice of their technology-related problems and issues. However, there have been concerted efforts to offer solutions to MSMEs on these issues as the government is working towards the launch of E-commerce portal 'Bharat Craft' that will act as a direct interface between sellers and buyers.

5. **Labour issues:** Most SMEs face frequent labour issues and especially in the new normal times.The ongoing migrant crises has manifested itself as one of the most difficult areas for industries to operate in such times of pandemic. Apart from labour problems, businesses also need to emphasize skill development, training, and ensuring market linkages to facilitate both urban and rural micro-entrepreneurs. The emphasis on skill development can benefit the sector substantially and more so at the time of crisis.

6. **Lack of Trust:** It is seen that banks refrain from extending MSME loan since the amount remains small and also, banks believe MSMEs lack the required repayment capacity. In such a situation, they end up implementing stricter regulations on these start-ups. Some businesses also fail to keep track of their credit rating that hampers the prospect of availing loans. Moreover, traditional lending options make it difficult for business owners to meet strict eligibility criteria besides the lengthy procedure of MSME loan approval further dampens their spirits.

7. **Absence of collateral in loan:** Some businesses may find it difficult to avail MSME loan as a result of a strict collateral protocol. Since small companies may not have the property to substantiate the criteria to avail a loan, business owners may opt for unsecured business loans from lenders.

Despite these challenges, the success in business is not elusive if you are determined and these problems can be easily addressed if you get the right support from the lender.

16.7 ROLE OF MSMEs IN PROPELLING ECONOMIC DEVELOPMENT

1. **MSMEs and their potential contributions to Sustainable Development Goals (SDGs) that help in economic development:**The 17 Sustainable

Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015. The goal aimed to end poverty, protect the planet and ensure that by 2030 all people of the world enjoy peace and prosperity. MSMEs are widely recognized for the important contributions they maketo achieve SDGs in terms of contributions to economic growth, creation ofdecent jobs, provision of public goods and services, as well as poverty alleviation andreduction in inequality. The MSMEs are considered important contributors of employment and directly benefit the poor andvulnerable, particularly women and youth. Job creation helps in reducing poverty, increasing income and positively impact household investments in education and health overtime. MSME development has the potential for wide reaching impacts on the SDGs globally, including SDG 1 (end poverty), SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 5 (genderequality), SDG 8 (promote inclusive and sustainable economic growth, employment and decent work), and SDG 9 (improve sustainable industrialization and fostering innovation).

2. **Other ways in which MSMEs help in propelling economic development are as follows:**

   i) MSMEs drive innovation and expand the tax base.

   ii) MSMEs also increase the competition amongst the peers. The continuous struggle for supremacy among MSMEs brings out the best in a business. This triggers a win-win situation for both provider and the consumer. Moreover, this increases the aggregate productivity as well as economy-wide efficiency.

   iii) New entrepreneurs entering MSME sector bring forth innovations, ideas and skills.

   iv) In recent years, MSMEs have registered a higher growth rate as compared to the global industrial sector. The chief advantage of the MSME sector is its potential to generate employment at low capital expenditure.

   v) The economic growth in many Asian countries such as Korea, Taiwan and Japan is directly proportional to the spurt in MSME activities. MSMEs play a very significant role in the rapid industrialisation and development of China, where approximately 99% of the total business ventures are MSMEs. These MSMEs together produce around 60% of the total industrial output and approximately 40% of the total profits and taxes achieved by the various industries in China. Again, various SMEs in the US generate more than half of the gross domestic products.

   vi) MSMEs act as a cushion against recession as they quickly adapt and innovate as per the changing circumstances. There is a big connection between the various levels of poverty, hunger and economic well-being of the society and the general condition of various MSMEs in the country.

   vii) In almost every country, the MSMEs are a large proportion of all businesses in the country. In most developing and developed economies, over 90% of MSMEs improve the employment rate. In fact, when big industries downsize and cut down jobs, MSMEs keep developing and creating more jobs.

viii) MSMEs adapt fast to the dynamic business world by switching on to e-commerce and online transaction of goods and services. The advancement in technology has not only eased out the process of selling and buying, it has helped the entrepreneurs to cut cost on advertising and marketing too. The various e-commerce platforms make life easy for MSMEs.

ix) MSMEs play a vital role in being service providers and traders to the primary industry.

x) MSMEs also produce the finished goods as well as services.

xi) MSMEs contribute heavily to the development of various sectors such as manufacturing, agriculture and ICT services.

xii) There is a reciprocal relationship between an MSME and the economy. Development in economy ensures the creation of more MSMEs. The creation of more MSMEs ensures a boost in the economy.

16.8 MSMEs IN INDIA

In India, MSMEs are the important drivers of economic development, innovation and employment. As per the National Sample Survey, India has approximately 6.4 crore MSMEs. Bulk of them are micro-enterprises numbering about 6.3 crore. They constitute about 94% of the total MSMEs. They are followed by small enterprises. There are about 3.3 lakh small enterprises in the country and constitute about 5% of the total MSMEs. The number of Medium enterprises are about 5,000 and constitute less than one percent of the total MSMEs in India.Out of 633.88 estimated number of MSMEs, 324.88 lakh MSMEs (51.25%) are in rural area and 309 lakh MSMEs (48.75%) are in the urban areas.

Table 4: Distribution of Enterprises (in lakhs)

Sector	Micro	Small	Medium	Total	Share %
Rural	324.09	0.78	0.01	324.88	51
Urban	306.43	2.53	0.04	309.00	49
All	630.52	3.31	0.05	633.88	100

The MSME sector contributes very significantly to the growth of the economy. Its share in manufacturing output is about 45%. While in exports of the country the share of the sector is more than 40%, it is about 30% in total Gross Domestic Product (GDP) of the country.The MSME sector provides employment to about 111 million people. The Table 5 provides the data on the contribution of MSME sector to GDP of the country.

Table 5: Share of MSME Sector in the GDP of the country

Year	Total Gross Domestic Product (GDP) (Rs. in Crores)	Share of MSME in GDP (%)
2012-13	9944013	29.94
2013-14	11233522	29.76
2014-15	12445128	29.39
2015-16	13682035	28.77
2016-17	15391669	29.25
2017-18	17098304	29.75
2018-19	18971237	30.27

Source: Annual Report Ministry of MSME 2020-21

While the agriculture sector produces the highest volume of goods in India, MSME sector stands next only to agriculture in terms of volume of goods produced and services provided. The MSME sector in India is not homogeneous. The enterprises vary widely in size. They produce variety of goods and services. They employ different levels of technology. However, the sector has the potential to grow at a faster pace. The National Manufacturing Policy proposes to increase the share of manufacturing sector in GDP from the present 16% to 25% by 2022 to shift a part of population from agriculture to industry. Since the MSMEs contribute about 45% to the manufacturing sector, they need to play a very big role in increasing the share of manufacturing sector in the GDP of the country.

Estimated number of MSMEs in country

The MSMEs in India are play in gacrucial role by providing large employment opportunities at comparatively lower capital cost than large industries as well as through industrialization of rural and back wardareas and helping the country to reduce regional balances. They areas suring more equitable distribution of national income and wealth. As mentioned earlier, the NSS 73rd round, conducted by National Sample Survey Office, Ministry of Statistics & Programme Implementation during the period 2015-16, found that there were 633.88 lakh unincorporated non-agriculture MSMEs in the country engaged in different economic activities (196.65 lakh inManufacturing, 0.03 lakh in Non-captive Electricity Generation and Transmission, 230.35 lakh in Trade and 206.85 lakh in Other Services).

Table 6: Number of MSMEs in India (Activity Wise)

Activity	Estimated number of MSMEs (in lakhs)			Share %
	Rural	Urban	Total	
Manufacturing	114.14	82.50	196.65	31
Trade	108.71	121.64	230.35	36
Other Services	102.00	104.85	206.85	33
Electriciy	0.03	0.01	0.03	--
Total	324.88	309.00	633.88	100

Source: Annual Report Ministry of MSME 2020-21

Employment Generation by SMES in the country

As per the NSS, MSME sector has created 11.10 crore jobs (360.41 lakh in Manufacturing, 387.18 lakh inTrade and 362.82 lakh in Other Services and 0.07 lakh in electricity Generation and Transmission,) in the rural and the urban are as across the country. Majority of the jobs are created in Trade followed by other services and manufacturing. Table 7 shows the distribution of employment by various activities.

Table 7: Distribution of employment by various activities

Activity	Employment (in lakhs)			Share %
	Rural	**Urban**	**Total**	
Manufacturing	186.56	173.86	360.42	32
Trade	160.64	226.54	387.18	35
Other Services	150.53	211.69	362.22	33
Electricity	0.06	0.02	0.07	--
Total	497.79	612.11	1109 .89	100.00

	(45%)	(55%)	(100%)	

Source: Annual Report Ministry of MSME 2020-21

Most of the employment generation in MSME sector is provided by Micro enterprises (about 97%). Small enterprises generate about 2.9% of the total employment of the sector. The medium enterprises provide employment to only 1.75 lakh people. Thus, the employment generation potential of Micro enterprises is very high in India. Between the rural and urban areas, the employment generation by MSME sector in urban areas is much higher as compared to rural areas.

Distribution of MSMEs in the country

The MSMEs are disproportionately distributed among the various states of the country. Two states of the country viz., Uttar Pradesh and West Bengal account for more than one fourth of the total MSMEs. Five states of the country (UP, West Bengal, Tamil Nadu, Maharashtra and Karnataka) account for about 50 percent of the total MSMEs of the country. Ten states of the country account for more than three-fourths of the MSMEs of the country. Table 8 shows state-wise distribution of MSMEs.

Table 8: State-wise Distribution of MSMEs in the country

State	Number of Enterprises	%share
UttarPradesh	89.99	14
WestBengal	88.67	14
TamilNadu	49.48	8
Maharashtra	47.78	8
Karnataka	38.34	6
Bihar	34.46	5
Andhra Pradesh	33.87	5
Gujarat	33.16	5
Rajasthan	26.87	4
Madhya Pradesh	26.74	4
Total of above ten States	469.36	74
Other State/UTs	164.52	26
Total MSMEs	633.88	100

Source: Annual Report Ministry of MSME 2020-21

Regarding the status of MSMEs in the country the following points are important to remember:

1. Most of the MSMEs (95%) in India are Micro enterprises.
2. Majority of the Micro enterprises are located in rural areas. Majority of the small and most of the Medium enterprises are located in urban areas. Promotion of agro-based industries may help in locating more number of small and medium enterprises in the rural areas.
3. MSMEs have been contributing significantly (30%) to the GDP of the country.
4. About three-fourths of the MSMEs are concentrated in manufacturing and trade. Other services occupy the remaining MSMEs. This is one of the important reasons why the MSMEs were worst affected as trade was badly hit by COVID-19.

5. About 80% of the MSMEs are owned by males. Hence, there is need for promotion of women entrepreneurship in the country.
6. Among the various social groups, SCs and STs own very less percentage of MSMEs as compared to OBCs and others. Hence, there is need for promotion of entrepreneurship among SCs and STs.
7. MSMEs provide about 11 crore jobs in the country. About 55% of these jobs are in urban areas. About 97% of this employment is provided by micro enterprises. About 80% of the employees of MSMEs are males. Hence, there is need for promotion of employment of women in MSMEs.
8. MSMEs are not evenly distributed across the country. Top ten states of the country account for about three-fourths of the MSMEs.

Check your progress B

1) What is the reasons for non-registration of MSMEs in India?

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2) Which states occupy the top four positions in terms of number of MSMEs in India.

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3) State whether the following statements are True or False:
   1. The number of micro enterprises are more in rural areas than in urban areas in India.
   2. MSMEs contribute about 30% to the GDP of the country.
   3. Manufacturing MSMEs are higher in percentage as compared to other categories.
   4. Small and Medium enterprises generate more employment as compared to micro enterprises.
   5. The number of women employees are more in MSMEs as compared to male employees.

16.9 LET US SUM UP

MSMEs occupy a key role in both developing and developed countries in terms of contribution to GDP, employment, exports and also in reduction in social, gender and income inequalities. However, the identification of MSMEs is not the same throughout the world as the definitions of MSME vary from country to country. The World Bank identified number of employees, assets and sales turnover as the basis for identification of MSMEs. In India, till 2006, the small industries were identified on the basis of number of employees. The MSMED Act 2006 took investment as a criterion for defining the MSMEs. It was because relatively easier to measure and verify investment. The Act distinguished between manufacturing and service enterprises for the purpose of identification of

MSMEs.The Government amended the definition of MSMEs in 2016 by adding turnover to investment and removed the distinction between manufacturing and service enterprises. The substantial enhancement of investment limits aimed at encouraging the MSMEs to expand their capacities without losing the governmental benefits. Government of India has initiated several steps to promote MSMEs, help them to overcome their problems and improve their ease of doing business. The Government also simplified the process of registration of MSMEs, as registration is mandatory for MSMEs to receive the governmental benefits. The growth of MSMEs has not been happening to the desired extent as they face several challenges such as infrastructure bottlenecks, credit, timely payment from customers, skill gap, marketing of products, availability of inputs etc. The development of MSMEs in India is skewed. Majority of the enterprises are located in urban areas and concentrated in a few states. Very less number of MSMEs is owned by socially disadvantaged and women. Micro Enterprises are generating employment in a significant way as compared to small and medium enterprises. However, most of the employees of the MSMEs are men.

16.10 KEY WORDS

MSME: Micro, Small and Medium Enterprise

Micro Enterprise: An enterprise, where the investment in plant and machinery or equipment does not exceed one crore rupees and turnover does not exceed five crore rupees.

Small Enterprise: An enterprise, where the investment in plant and machinery or equipment does not exceed ten crore rupees and turnover does not exceed fifty crore rupees.

Medium Enterprise: An enterprise, where the investment in plant and machinery or equipment does not exceed fifty crore rupees and turnover does not exceed two hundred and fifty crore rupees.

MyMSME: A mobile application that provides information on all schemes implemented by the Ministry of MSME at one place. The MSMEs can apply for any of these schemes or lodge grievances pertaining to Ministry of MSME through this app.

MSME SAMBANDH: A Portal tracks the procurement made by CPSEs from MSEs including SC-ST MSEs on a quarterly basis and contains the necessary information relating to the requirement of CPSEs.

MSME SAMADHAN: MSME Delayed Payment Portal –MSME SAMADHAN for empowering MSEs across the country to directly register their cases in case of delayed payments from customers.

Udyam: Any new person setting up an MSME has first to be registered under the Udyam Registration and do a self-declaration regarding the size of the business they conduct. The new Udyam Registration can be filed online with no requirement to upload any documents, certificates, papers, or proof.

Pradhana Mantri Mudra Yojana (PMMY): The scheme provides loans known as MUDRA (Micro Units Development and Refinance Agency Limited) up to 10 lakhs to non-corporate and non-farm small or micro-enterprises. MUDRA provides refinance to banks, microfinance institutions (MFIs) and NBFCs for lending loans.

Prime Minister's Employment Generation Programme (PMEGP): This is a Government of India's credit-linked subsidy programme designed by merging Prime Minister's Rojgar Yojna and Rural Employment Generation Programme. The programme focuses on generating self-employment opportunities among unemployed youth and traditional artisans through micro-enterprises in non-farm sector.

Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE): Ministry of MSMEs and Small Industries Development Bank of India (SIDBI) jointly established the CGTMSE. The trust aimed to implement a credit guarantee scheme for MSMEs to the loans provided to SMEs by banks without any third-party guarantee or collateral.

Credit Linked Capital Subsidy Scheme (CLCSS): The objective of the Scheme is to facilitate technology up-gradation in MSEs. Under the scheme an upfront capital subsidy of 15 per cent on institutional finance of upto Rs 1 crore availed by the MSEs for induction of well-established and improved technology in the specified 51 sub-sectors/products approved.

Entrepreneurship promotion and development Programmes (ESDP): They are meant to nurture the talent of youth by enlightening them on various aspects of industrial/business activity required for setting up MSEs.

16.11 ANSWERS TO CHECK YOUR PROGRESS

A. 3) A-d;	B-a;	C-b;	D-c.	
4) 1. False;	2. False;	3.True;	4. True;	5. False.
B.3)1.True;	2. True;	3. False;	4. False;	5. False

16.12 TERMINAL QUESTIONS

1. Define MSME and explain the superiority of the present definition over the earlier definitions.
2. Explain the various initiatives taken by the Government to help the growth of MSMEs.
3. Explain the process of registration of MSMEs and the benefits of registration.
4. Explain the challenges faced by MSMEs in India.
5. Describe the role of MSMEs in economic development.
6. Describe the present status of MSMEs in India.

UNIT 17 SERVICE SECTOR (ICT & COMMUNICATION)

Structure

17.0 OBJECTIVES

After going through this unit, you will be able to:

- Explain the meaning of ICT sector;
- Discuss the structure of IT Industry;
- Analyse the Telecommunications Industry; and
- Describe the present status of ICT sector in the country.

17.1 INTRODUCTION

The economy of a country consists of three sectors viz. primary sector, secondary sector, and tertiary sector or service sector. The primary sector consists of the activities that use natural resources for production/extraction of raw materials and include agriculture and allied activities, forestry, mining etc. The secondary sector also known as the industrial sector is associated with the activities which involve the conversion of raw material into usable products and includes heavy manufacturing, light manufacturing, energy-producing, food processing, etc. The service sector produces intangible goods, more precisely services instead of goods. It comprises various service industries including warehousing and transportation services; information services; securities and other investment services; professional services; waste management; health care and social assistance; arts, entertainment and recreation. Countries with economies centered on the service sector are considered more advanced than industrial or agricultural economies.ICT sector is one of the important part of services sector and consists of Information technologies (IT) and Communication industries. Let us discuss these two industries separately. In this Unit, you will learn about the IT and

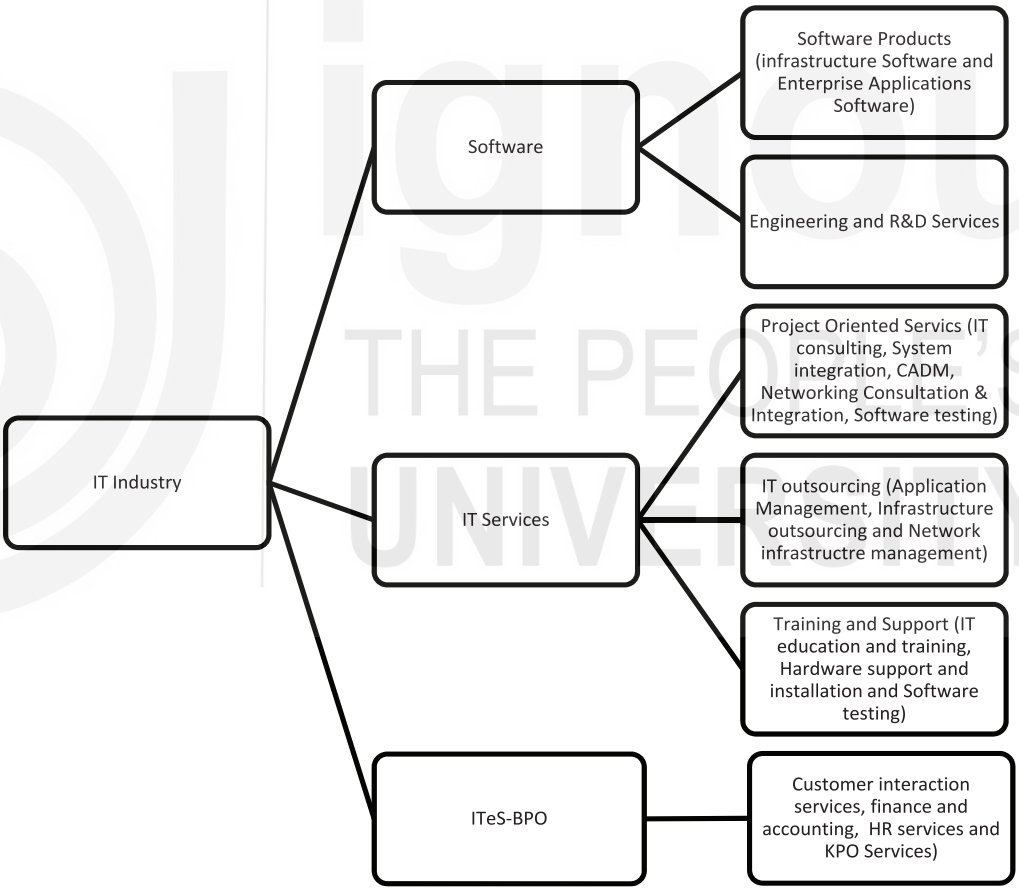
communicatios industry. You will be further apprised with the role, challenges, ICT Products and government support to ICT Product development.

17.2 IT INDUSTRY

The IT industry covers IT services, IT-enabled services (ITES), e-commerce (online business), Software and Hardware products. IT based services are essential for any organization to increase productivity, ease of doing business, and grow efficiently and economically. IT contributes to the economic growth of the country and makes governance more transparent and accessible. It has made access to government services and information easier and less expensive. Information technology has also made management and delivery of government services much easier and plugged leakages. The IT industry has become the backbone of our economy to prosper exponentially and to generate millions of jobs.

IT industry in India can broadly be classified into three sectors viz., i) Software, ii) ITservices and iii) InformationTechnology Enabled services-Business Process Outsourcing (ITeS-BPO) as shown in the following diagram:

Structure of IT Industry



Source: Indian IT Sector Profile Report, SESEI

According to the Ministry of Electronics and IT, "the IT sector is the biggest employment generator and has helped the growth of several ancillary industries such as transportation, real estate, catering, security, housekeeping etc. Direct employment in the IT services and BPO/ITeS segmentis estimated to reach 4.47million in FY 2020-2021 with an addition of 1,38,000 people (36 percent women employees). Indirect job creation is estimated to be over 12.0 million." The IT industry accounted for 8% of the country's GDP in 2020.According to RBI, "India's exports of software services are estimated at US$ 133.7 billion during 2020-21, registering 4.0 per cent growth over the previous year. The IT and IT

Enabled Services (ITeS) sectors go hand-in-hand, in every aspect. IT software and service industry has emerged as one of the fastest growing sectors in the Indian economy. It recorded a growth rate exceeding 50 per cent in exports and 40 per cent both domestic and exports together over the last five years.

According to the Department for Promotion of Industry and Internal Trade (DPIIT) of the Government, Computer Software and Hardware industry attracted about US $180 billion (about Rs.5.23 lakh crores) Foreign Direct Investment (FDI) during April- 2020 to September -2001 which is about 14 percent of the total FDI flows into the country.

Among the various constituents of the IT industry in the country, IT services account for about 52 percent of total IT sector revenues. Of the revenues about 80 percent comes from the export market. Business Processing Management (BPM) accounts for about 19 percent of the total IT industry revenue and around 87% of revenue comes from the export market. Software products and engineering services account for about 20 percent of the total IT revenues and around84 percent of revenue comes from exports. Hardware accounts for about 9 percent of IT revenue in the country. Since production of computer hardware is one of the priority areas of the Government under Atmanirbhar Bharat, the government is giving a push to domestic manufacturing of electronics. It is providing a production linked incentive (PLI) of Rs 7,350 crores for production of laptops, tablets, PCs and servers in the country. This will help improving the domestic production and export of hardware from the country.

Facilitators of Growth of Software Industry in India

1. **Availability of highly qualified talent pool:** One of the greatest strengths of India happens to be its skilled human resources. Availability of highly qualified talent pool at lower rates helps the IT industry in cutting the cost for about 60-70 % and become competitive in the global market. This large pool of qualified skilled work force has enabled Indian IT companies to help clients save US$200 billion during the last five years.
2. **Increasing adaption of emerging technologies:** Disruptive technologies like AI (Artificial Intelligence),Social Media, Mobility, Analytics and Cloud (SMAC), embedded systems etc. are the emerging trends of the industry. India has been creating a future-ready digital workforce. India has a large number of employees with SMAC skills.The SMAC market is expected togrow to USD225 billion by 2020. In fact, India is among the top 10 nations in the world in terms of technological advancements and funding in artificial intelligence, according to findings from a study published by The Brookings Institution.
3. **Government policy support:** Government of India envisions a digitally equipped India and emphasizing on activities to promote programmes for skill development and uplifting infrastructure capabilities. R&D programmes are being supported by GoI at every possible level to maintain India's strategic advantage in IT and IT-enabled Services in the global market. Some of the Governmental initiatives in promoting the IT industry in the country are as follows:

    a) The Department of Electronics and Information Technology (DeitY) has drafted India's first 'Internet of Things Policy'in October 2016 to help the country to become a digital economy. The vision of the policy is "to develop connected and smart IoT based system for our country's Economy, Society, Environment and global needs."

b) In 2013, Ministry of Communication and Information Technology of the Government of India had released the 'National Cyber Security Policy' to protect information, such as personal information, financial/banking information, sovereign data etc.As part of the policy, the government has proposed to create a workforce of around 500,000 trained in cyber security. It also proposes to provide fiscal benefits to businesses to adopt best security practices.

c) In order to promote further growth of ICT industry, the government has approved 'National Policy on Information Technology 2012'which aims to make at least one individual in every household e-literate among other objectives.

d) The Ministry of Electronics and Information Technology (MeitY), Government of India set up Software Technology Parks of India, an Autonomous Society in 1991, with the objective of encouraging, promoting and boosting the Software Exports from India.

e) Under Digital India Programme, the India BPO Promotion Scheme (IBPS) was approved to incentivize BPO/ITES Operations across the country for creation of employment opportunities for the youths and growth of IT-ITES Industry.

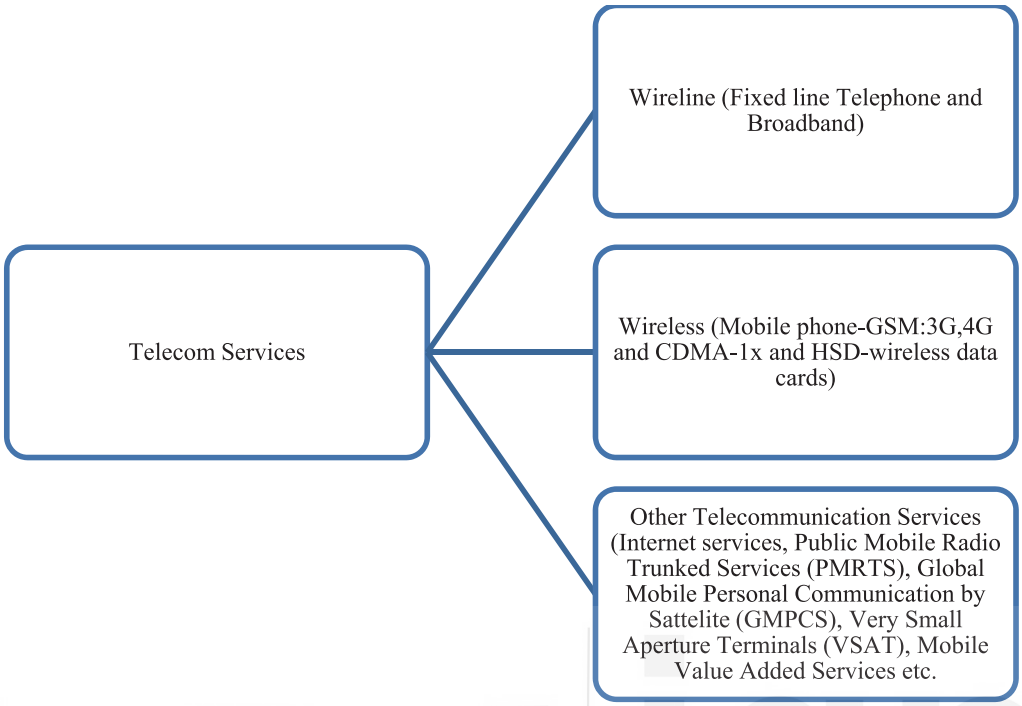
f) As per the FDI policy, 100% FDI has been allowed in the software/ IT industry under the automatic route (i.e.,no need to obtain prior government approval).

g) In September 2021, the Indian government launched Phase II of Visvesvaraya PhD Scheme to encourage research in 42 emerging technologies in Information Technology (IT), Electronics System Design & Manufacturing (ESDM) and Information Technology Enabled Services (ITES).

4. Emerging geographies and verticals, products and automation are helping the industry to grow further.
5. Use of IT in emerging verticals such as retail, health care, utilities etc. are driving grow thin Indian IT sector.
6. Revival in demand for IT services from US and Europe is also helping the industry to grow.

17.3 COMMUNICATIONS (TELECOM) INDUSTRY

The telecom sector is one of the fastest growing sectors in India. It has been undergoing an innovative phase over the past few years. India has become the second largest telecommunication market in the world after China. The telecom sector has assumed the position of an essential infrastructure for socioeconomic development of the country. Telecom services in India can be divided into two broad segments, wire-line services (includes fixed line telephone and Broadband) and wireless services (includes mobile phone–GSM and CDMA). The other telecommunication services that include internet services, broadband services, VSAT, have also evolved gradually and have become an integral part of the Indian telecom industry. On the other hand, the wire line segment has been witnessing a drastic decline in its subscriber base in the last 10 years. The following diagram presents the various telecom services in India.



17.3.1 Status of Telecom Industry in the Country

Several studies have shown positive correlation of the Internet and Mobile Services on growth of the GDP of a country. Telecommunication sector has delivered a visible transformation to the society, the common man and helped India's overall socio-economic development. The policy framework of the country has also facilitated the growth and development of the sector. Indian telecom industry is currently the world's second largest telecommunications market. India has the second-largest number of telephone connections in the world. The following tables show the data pertaining to various dimensions of Telecommunications scenario in India as reported by Telecom Regulatory Authority of India. It can be seen from Table 1 that there are about 117 crore telephone subscribers in India as on 31.12.2020. The urban subscribers are 10 percent more than the rural subscribers. Most of the subscribers are wireless (mobile) subscribers. The number of wire line subscribers (fixed line) is very insignificant at about two percent of the total subscribers of telephones in the country. In fact, it has been declining rapidly for the past ten years. There are very few rural consumers who opted for fixed line connections. There is a slight difference of about five percent in the number of rural and urban telephone subscribers in the country. There are about 80 crore internet subscribers in the country which has been helping the government in its objective to make India a digital economy. About 94 percent of internet subscribers in the country are broad band subscribers, which again is a good sign. In internet access, broadband technologies provide higher data rate in terms of Mbps, whereas narrowband connections provide slower data rate such as 56 kbps. About 97 percent of the internet subscribers of the country are wireless internet subscribers. A wireless network allows devices to stay connected to the network but roam undeterred to any wires. A wired network uses cables to connect devices, such as laptop or desktop computers, to the Internet or another network. A wireless network is much more advantageous as compared to wired network.

Table 2: Subscriber base of Telecommunications as on 31.12.2020 (in millions)

	Number	%
Total Subscribers both wireless and wireline	**1,174**	**100**
a) Urban Subscribers	648	55
b) Rural Subscribers	526	45
Wireless subscribers	**1154**	**98**
a) Urban subscribers	630	55
b) Rural Subscribers	524	45
Wire line Subscribers	**20**	**2**
a) Urban Subscribers	18	90
b) Rural Subscribers	2	10
Internet Subscribers	**795**	**100**
a) Broadband subscribers	747	94
b) Narrowband subscribers	48	6
a) Wireless internet subscribers	770	97
b) Wired internet subscribers	25	3
a) Urban internet subscribers	487	61
b) Rural internet subscribers	308	39

Of 100 people in the country 59 persons are internet subscribers. However, there is wide variation between urban and rural areas in this percentage. In rural areas only about 35 of 100 persons are internet subscribers, in urban areas about 104 per 100 persons hold internet subscription. This may be because of a person holding more than one internet connection. As far as teledensity is concerned (connections per 100 persons) it is about 86 in the country. While in urban areas the teledensity is about 138, in rural areas it is only about 59. This shows the need for further expansion of telecommunication network in the rural areas. The share of private sector in both telephone and internet connections is about 90 percent. It is a commonly known fact that the smart phones help in mobile commerce, mobile banking, access to government services etc. There are about 49 crore users of smart phones in India and this number needs to go up substantially for achieving the objective of transforming Indian economy into a digital economy. The Government is moving fast in this direction. The Department of Telecommunications is targeting 100% broadband connectivity in the villages, 55% fiberisation of mobile towers, average broadband speeds of 25 mbps and 30 lakh kms of optic fibre rollouts by December 2022. By December 2024, it is looking at 70% fiberisation of towers, average broadband speeds of 50 Mbps and 50 lakh kms of optic fibre rollouts at a pan-India level.

According to Invest India, a National Investment Promotion and Facilitation Agency, the Telecom Sector of India provides direct employment of 2.2 million people and indirect employment of 1.8 million people. According to one estimate, telecom as well as telecom manufacturing sector is expected to createover 10 million employment opportunities by 2025. The employment opportunitiesare expected to be created due to combination of government's efforts to increase penetration in rural areas and the rapid increase in Smart phone sales and rising internet usage. Rise in mobile-phone penetration and decline in data costs will add 500 million new internet users in India, creating opportunities for new businesses. According to Swedish telecom gear maker Ericsson, the monthly data usage per Smart phone in India is expected to increase from 3.9 GB in 2017 to 18 GB by 2023.

However, in recent times, the financial downturn in the economy coupled with the policy and regulatory uncertainty led to deteriorated fundamentals of telecom service providers. Considering the role of telecom as the backbone of economic and social development, the Government has taken corrective measures to put back the sector on track. Some critical areas requiring immediate attention of the Government, however, are rationalisation of levies and making more spectrum available at a reasonable price to the industry to facilitate the launch of 5G services.

17.3.2 Growth Drivers of Telecommunications Industry

Growing young population & Changing lifestyle: Mobile internet is predominantly used by youngsters. However, there is a wide variation in the use of mobile internet between urban and rural youth. The next wave of growth in mobile internet users is going to come from rural areas, where mobile data penetration among youth is very low at present.

Increasing rural market: Rural market would be a key growth driver for telecom industry in coming years as telecom penetration in rural areas is still very low as compare to urban areas.

Favorable policy support: Government of India has fast-tracked reforms in the telecom sector and continues to be proactive in providing room for growth for telecom companies. Some of major steps suchas Digital India Programme, National Digital Telecommunication Policy 2018, National e-Governance Plan etc. have been taken up by GoI to promote R&D, innovation and to attract investment in Telecom sector in India. In the Union Budget 2021-22, the government allocated Rs. 14,200 crores (US$ 1.9 billion) for telecom infrastructure that entails completion of optical fibre cable-based network for Defence services, rolling out broad band in 2.2 lakh panchayats and improving mobile services in the North East.

Tele-density in rural areas remains one of the main areas of growth for telecom players where the tele-density is low.

Rising income will be a key determinant of demand growth in the telecommunication sector in India, with the emergence of an affluent middle class triggering demand in the mobile and internet segments.

India's young population, rapid urbanization and growing middleclass is expected to ensure a growing subscriber base in the target demography. It is estimated that 93.3% of India's population is estimated to be aged under 65 years, with 26.3% aged under 15 years. This is driving growth in content consumption through various streaming apps, and the demand for high speed internet is expected to grow by leaps and bounds.

Despite such a strong broadband subscriber addition, there is still a large head room for wireless broadband penetration to improve, as it still remains low at 57.7% as of March 2020. The growth in social media usage, rapidly increasing content consumption and many organizations gradually transitioning to 'Work from Home' will continue to drive demand for data.

DTH operators are likely to benefit from a rising subscriber base and higher market penetration. Innovations in paid TV services, migration from SD to HD boxes have increased consumption of -smart TV's and HD services, offering more opportunities to service operators.

Increased penetration of affordable devices, combined with cloud computing, analytics and rising consumer expectations is driving the rapid growth of the IOT

market. The Indian Government is planning to develop 100 smart city projects, where IoT would play a vital role in development of those cities. Telecom will play a critical role in providing connectivity and solutions in this market.

In the era of 5G, telecom companies stand to earn 70% of their revenue from core beneficiaries of 5G. Currently, they earn 30% from enterprises. While implementation and rollout of 5G is still some time away, the standards and ecosystem on 5G have already gathered pace with more and more use cases coming into picture.

The Government of India has introduced Digital India Program where sectors such as healthcare, banking, will be connected through internet providing ample opportunities for growth in the sector.

Post COVID-19 related lockdown, work from home may become a new normal for many organizations, thus creating opportunities for different telecommunication services across the spectrum- fixed line, broadband, enterprise solutions besides pure mobile connectivity.

Check your progress A

1) What is the structure of the IT industry?

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2) State the various telecom services in India.

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3. Match the following:

A. Telecom Service	a. HR services
B. IT services	b. IT Outsourcing
C. ITeS-BPO	c. R&D Servics
D. Software	d. CDMA

4. State whether the following statements are true or false:
   1. Warehousing and transportation services come under Primary Sector.
   2. The IT industry covers IT services, IT-enabled services (ITES), e-commerce (online business), Software and Hardware products.
   3. IT services account for about 52 percent of total IT sector revenues.
   4. The monthly data usage per Smart phone in India is expected to increase from 3.9 GB in 2017 to18 GB by 2023.
   5. About 94 percent of internet subscribers in the country are broad band subscribers.

17.4 ROLE OF ICT IN ECONOMIC DEVELOPMENT

The ICT industry (telecommunications operators, computer and software producers, electronic equipment manufacturers) is playing an increasingly

important role in the global economy. The industry has been playing an otablerole in contributing to social goods such as improving education and health care access and services. It is estimated that just one action—bring-ing mobile broadband levels in emerging markets upto those of more mature markets—could add between US$ 300 and US$ 420 billion to the world's GDP. 10 to 14 million direct and in direct jobs will be create dinareas such as equipment manufacturing and outsourcing/ off shoring services.

Investments in ICT lead to economic sustainability: Investingin ICT is a key driver of economic development for emerging and developed markets a like. Infact, investing in ICT can help countries increase their annual GDP growth by 0.6–0.7 percent on average, on annual basis as several studies have shown. This impact of investing in ICT is created by a combination of direct and indirect effects on the economy. Direct effects come from investments in infrastructure, increased availability and penetration of services, and increased employment in the ICT sector. ICT's indirect effects include productivity gains for businesses, increased foreign direct investments as a consequence of a country being ICT-enabled, the creation of innovative industry clusters such as knowledge cities, and higher exports of ICT services such as out sourcing.

Social Benefits of ICT: Beyond encouraging economic growth, the ICT industry is helping to achieve social sustainability by improving the way societies and governments provide education, healthcare, and services to citizens. Additionally, the ICT industry is changing the way people interact with each other, creating longer-term and largely positive changes in a variety of areas.

Impact on Education: The ICT sector has already dramatically changed the way people study. A wide range of information is available free on the Internet—something that was un thinkable just 20 years ago. The use of email, websites, and virtual class rooms and libraries has proliferated, facilitating the sharing of information on a large scale.

Impact on Health care: The use of ICT for health (e-health) has the potential to transform healthcare by efficiently connecting people and improving in formation sharing.Currently, e-health is predominantly seen in developed countries. But as the availability of ICT spreads rapidly in the developing world, there is an opportunity to expand health care access to are as where distance, poverty, and scarce resources are currently barriers to even basic care. Thanks to ICT, doctors can access patients' medical records more easily, have immediate access to test results from a laboratory, and deliver prescriptions directly to pharmacists.

Impact on Government Services: Early breakthroughs in e-government—such as the useof ICT to provide and improve public-sector services, transactions, and interactions—have enabled government organizations to deliver better services more efficiently. In India, for example, taxpayer snow file tax return selectronically. Many other transactions—ranging from renewing drivers' licenses and paying parking tickets to managing government benefits—are conducted online. Citizens have a much easier and faster access to government services because of ICT.

Improved information access and communication: ICT is changing the way people are accessing information (with Google and Wikipedia, for example) and interact with each other (blogs, social networking sites,virtual reality sites etc.). Social networking websites have changed the job recruitment rules. Today these sites are the places to find a job and recruit the talent.

ICTs helps, builds and transforms the lives of the farmers: ICTs plays a very crucial role by disseminating information to farmers to help them make better well informed decisions. Through ICTs people can obtain the latest up-to-date information, learn and practice sustainable farming.

ICT helps in improving quality and productivity in manufacturing sector: ICT helps in creation of new models of E-businesses, save the costs, improve the quality and quantity of production and increase the competition in markets. According to the economic literature, ICT deepens the capital—the increase of services per capital unit. Thus, the firms tend to use IT in the production process.

17.5 CHALLENGES FACED BY ICT INDUSTRY

The IT and Communication industries too face a few challenges. The challenges faced by these two industries are discussed separately:

Challenges faced by IT Sector

1. **Cyber Security Threats:** There have been frequent instances of in data breaches during the recent years. The industry losing significantly because of these data breaches. Common types of cyber-attacks are Fishing, Ddos, Spyware, Ransomware, Malware including viruses like Trojans, Worms, Key loggers etc.
2. **Talent Shortage:** Businesses are in the need of people with combinations of skill that have not previously been aligned, like analysts with coding abilities, or paramedics who understand statistics. The industry is looking for super-specialized skill sets which are in short supply. There is a huge gap in the skills the work demand and the skills job applicants have. Our education system still needs to be revamped. And that affects the industries that seek highly skilled employees. Unemployment is high in our country, but the fact is that many companies are not able to find talent to fill the positions. Retention of employees is one of the biggest challenges for the IT industry. Software companies recruit people, train them but in the end, they witness their resignation once they are enough experienced in the job. Organizations invest into employees to integrate them into the workflow.
3. **Cloud Computing:** All organizations in the IT industry are using the cloud for a wide variety to perform tasks like data backup, disaster recovery, email, virtual desktops, software development and testing. Rather than buying or owning physical data centres and servers one can access services such as computing power, storage and databases from the cloud provider. However, there are numbers of issues and concerns associated with cloud such as cost, service provider reliability, downtime, data overload, password, security issue, data privacy etc.
4. **Remote Workplace:** The pandemic has made remote work (work from home) a new normal. Working remotely can present unique challenges due to the lack of manager or teammates to consult or to provide immediate responses or sources. Infrastructure is the prime need to undertake such tasks, but to have such an infrastructure large investments are flown in acquiring assets that can support, govern and handle the heavy data loads. However, there are threats to these arrangements too, hacking and preventing the theft of data needs powerful firewalls and software. This is an added cost to the IT industry.

5. **Risks of outsourcing:** More companies are opting for outsourcing due to talent shortage or cost reduction. But outsourcing has created some challenges like security threats, legal complications, cultural and time zone issues.

6. **Government rules of different countries:** US companies hire highly skilled employees from other countries to work in their companies for special assignments. These employees were given H1-B visa but the trump administration changed the policy of H1-B visas which caused a negative impact on the organizations which are dependent on the US market. New procedures set by the US government to acquire H1-B made it difficult for companies to prove that the employee/workers who were travelling on an H1-B visa are supposed to serve a purpose in the project and not travelling for personal benefits or hidden gains.

Challenges faced by Telecommunications Industry

1. **Adaptation of Organization to Digital Transformation:**With the availability of new technologies, the variety and quality of services from telecom companies and internet service providers (ISP) are increasing, profit margins are decreasing. Hence, telcos have to take a fresh look at the level of ICT innovation and adapt their organization to digital transformation, which is expensive.

2. **Increase in Costs:** With millions of subscribers, a variety of new products, bundled and customized solutions, the operational support services like service configuration, order fulfillment, customer care, and billing are becoming increasingly complex. Hence, the cost of handling these operations requires resources and different tools. This has been raising the costs further.

3. **Requirement of Operational and Technological Innovations:** Telecommunication providers need to upgrade their IT and connectivity infrastructure and focus on providing data and voice services that are high quality, reliable, and affordable. Security of the networks has become a major priority for the Telcos and they are facing challenges with the emergence of new threats that are powered by new technologies. So, a number of operational and technical innovations are needed to meet customer expectations of complete system security.

4. **Impact of Internet of Things:** One more challenge waiting in the wings for telcos and Internet Service Providers is the impact of Internet of Things (IoT) that is leading to explosive growth in the connected devices. This growth is generating billions and trillions of new data sources and thus, it is expected that this growth will push the data to be handled by networks to zetta bytes per year.

17.6 ICT PRODUCTS

According to Organisation for Economic Cooperation and Development (OECD) "ICT goods are those that are either intended to fulfill the function of information processing and communication by electronic means, including transmission and display, or which use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process" ICT products must primarily be intended to fulfill or enable the function of information processing and communication by electronic means, including transmission and display. Thus, the ICT products are broadly categorized as follows:

Broad Categories of ICT Products

1	Computers and peripheral equipment
2	Communication equipment
3	Consumer electronic equipment
4	Miscellaneous ICT components and goods
5	Manufacturing services for ICT equipment
6	Business and productivity software and licensing services
7	Information technology consultancy and services
8	Telecommunications services
9	Leasing or rental services for ICT equipment
10	Other ICT services

Let us learn them one by one.

1. **Computer and Peripheral Equipment:** This category includes Point of Sale terminals, ATMs, Laptops, Notebooks, Input devices (Keyboard, Joystick, Mouse etc.), Scanners, Printers (Inkjet Printers, Laser Printers, Other printers), Two-in-one/three-in-one printers, Removable storage units, parts and accessories of computing machines, Monitors and projects etc.
2. **Communication Equipment:** It includes- Burglar or Fire Alarms, Transmission apparatus, Television cameras, telephone sets, mobile phones etc.
3. **Consumer Electronic Equipment:** It includes Video game consoles, Video camera recorders, Digital cameras, Radio broadcast receivers, Television receivers, Monitors and projectors, Sound recording or reproducing apparatus, Video recording or reproducing apparatus, Microphones, loudspeakers, headphones, earphones, audio-frequency amplifiers, electric sound amplifier sets etc.
4. **Miscellaneous ICT components and goods:** Sound video, network and similar cards, Printed circuits, Valves and tubes, Diodes, transistor and similar semi-conductor devises, photosensitive semiconductor devices, light emitting diodes, Electronic integrated circuits, Magnetic media, Optical media, Other recording media, Cards with magnetic stripe, Smart cards, Liquid crystal devices etc.
5. **Manufacturing services for ICT equipment:** Includes-Electronic component manufacturing services, Computer and peripheral equipment manufacturing services, Communication equipment manufacturing services, Consumer electronics manufacturing services, Magnetic and optical media manufacturing services etc.
6. **Business and productivity software and licensing services:** Includes-Operating systems, Network software, Data base management software, Development tools and programming languages software, General business productivity and home use applications, Other application software, Licensing services for the right to use computer software, Software originals, System software downloads, Application software downloads, On-line software etc.
7. **Information technology consultancy and services:** Includes-Business process management services, IT consulting services, IT support services, IT design and development services for applications, Website hosting services,

Application service provisioning, Other hosting and IT infrastructure provisioning services, Network management services, Computer systems management services etc.

8. **Telecommunications services:** Includes-Carrier services, Fixed telephony services, Mobile telecommunications services, Private net work services, Data transmission services, Other telecommunications services, Internet back bone services, Narrow band Internet access services, Broadband Internet access services, Other Internet telecommunications services etc.

9. **Leasing or rental services for ICT equipment:** Includes-Leasing orrental services concerning computers without operator, Leasing orrental services concerning telecommunications equipment without operator, Leasing orrental services concerning televisions, radios, video cassette recorders and related equipment and accessories etc.

10. **Other ICT Services:** Includes-Engineering services for telecommunications and broadcasting projects, Maintenance and repair services of computers and peripheral equipment, Maintenance and repair services of telecommunication equipment and apparatus, Installation services of main frame computers, Installation services of personal computers and peripheral equipment, Installation services of radio, television and communications equipment and apparatus etc.

17.7 GOVERNMENT SUPPORT TO ICT PRODUCT DEVELOPMENT

The Government of India introduced the National Policy on Software Products-2019 with a vision to drive the rise of India as a Software Product Nation and synergies with the IT/ITES sector. The policy is aimed at making India as a global player in development, production and supply of innovative and efficient Software Products. This is expected to facilitate the growth across the entire spectrum of ICT.

The following programmes have been implemented/are under implementation under the Policy:

1. National Software Product Mission (NSPM)
2. Indian Software Product Registry (ISPR)
3. Innovation Challenge for Development of Indian Video Conferencing Solution (Software Product)
4. ICT Grand Challenge (ICTGC) under National Policy on Software Products
5. Start-up Accelerator Programme of MeitY for Product Innovation, Development and Growth (SAMRIDH)
6. Next Generation Incubation Scheme (NGIS)

Let us learn them one by one.

1. **National Software Product Mission (NSPM):**The Mission has been constituted to evolve and monitor schemes, programmes and strategy for the implementation of National Policy on Software Products (NPSP 2019).
2. **Indian Software Product Registry (ISPR):** Indian Software Product Registry (ISPR) has been created to analyse numbers/ statistics/ database of Indian Software Product Companies (ISPC). This will bring all software

products at one single platform to provide a common pool of Indian Software Products thereby providing a trusted trade environment. It serves as a gateway to the Indian Software Product Company (ISPC) with exposures to millions of global players.

3. **Innovation Challenge for Development of Indian Video Conferencing Solution (Software Product):** Thechallenge has been launched to develop innovative Video Conferencing solution. The end product will be an Indian Software Product at par with International video and audio quality, should work in low and high network scenarios. The winner of the challenge who will be provided financial support of Rs 1 Crore (One Crore) with additional Rs.10 Lakhs towards O&M for next three years and will be adopted for Government use.

4. **ICT Grand Challenge (ICTGC) under National Policy on Software Products:** The Grand challenge has a provision to conduct 20 challengesto develop a variety of software products addressing socio-economic challenges. For example, the Ministry of Jal Shakti has announced to develop a 'Smart water supply measurement and monitoring system' via an ICT Grand Challengeto deploy at the village / semi-rural / semi-urban levels.

5. **Start-up Accelerator Programme of MeitY for Product Innovation, Development and Growth (SAMRIDH):** A significant numbers of start-ups die within the first few years and around 50% of the Start-ups fail by 4th year of their inception. The key reason for the failure of these start-ups is due to lack of right funding at the right time, not understanding market dynamics for their products, limited knowledge of user perception of their product, and not improving their product through constant innovation and continuous feedback, lack of funds for other needs such as research and development, expansion of organisation, use of latest technologies for growth etc. SAMRIDH, implemented by MeitY (Minitry of Electronics and Information Technology) under its Start-up Hub known as MSH is aimed at creating a conducive platform to Indian Software Product star-ups to enhance their products and securing investments for scaling their business. The program will focus on accelerating the 300 start-ups by providing customer connect, investor connect, and international immersion in next three years. Also, an investment of up to 40 lakh to the start-up based on current valuation and growth stage of the Start-Up will be provided through selected accelerators. It will also facilitate equal matching investment by the accelerator / investor. The programme aims to further the Indian start-up growth.

6) **Next Generation Incubation Scheme (NGIS):** The scheme is to create a vibrant software product ecosystem to complement the robust IT Industry for continued growth, new employment and enhance competitiveness. Under this scheme start-ups working towards solutions/ outstanding software products for futuristic problems/ emerging ICT technology/ societal problems are identified and promoted through technical and financial support and training. The scheme is launched in 12 locations of the country and aims to handhold 300 Tech Start-ups.

Check your progress B

1) What is the meaning of ICT product?

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2) Explain the meaning of SAMRIDH

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3. State whether the following statements are true or false:
   1. Computer and Peripheral Equipment Point of Sale terminals,
   2. Telecommunication services include network management services.
   3. National Policy on Software products was framed in 2020
   4. Indian Software Product Registry serves as a gateway to the Indian Software Product Company
   5. ICTGC under National Policy on Software Products is meant to develop a variety of software products addressing socio-economic challenges.

17.8 LET US SUM UP

Services sector plays an important role in an economy. ICT sector is a prominent sector in services sector. It consists of Information Technology (IT) Industry and Communications Industry. The IT industry covers IT services, IT-enabled services (ITES), e-commerce (online business), Software and Hardware products. IT industry in India can broadly be classified into three sectors viz., i) Software, ii) ITservices and iii) Information Technology Enabled services-BusinessProcess Outsourcing (ITeS-BPO) and is the biggest employment generator and has helped the growth of several ancillary industries in the country. The telecom sector is one of the fastest growing sectors in India. India has become the second largest telecommunication market in the world after China. Several studies have shown positive correlation of the Internet and Mobile Services on growth of the GDP of a country.

ICT products must primarily be intended to fulfill or enable the function of information processing and communication by electronic means, including transmission and display. The Government of India introduced the National Policy on Software Products-2019 with a vision to drive the rise of India as a Software Product Nation and synergise with the IT/ITES sector.

17.9 KEY WORDS

IT industry: Consists of three sectors viz., i) Software, ii) ITservices and iii) Information Technology Enabled services-Business Process Outsourcing (ITeS-BPO).

Telecom services: Consists of two broad segments--wire-line services (includes fixed line telephone and Broadband) and wireless services (includes mobile phone–GSM and CDMA). The other telecommunication services include internet services, broadband services and VSAT.

ICT Products: The products that are either intended to fulfill the function of information processing and communication by electronic means, including transmission and display, OR which use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process.

National Software Product Mission (NSPM): The Mission has been constituted for the implementation of National Policy on Software Products (NPSP 2019).

Indian Software Product Registry (ISPR): It serves as a gateway to the Indian Software Product Company (ISPC) with exposures to millions of global players.

Innovation Challenge for Development of Indian Video Conferencing Solution (Software Product): The challenge has been launched to develop innovative Video Conferencing solution.

ICT Grand Challenge (ICTGC) under National Policy on Software Products: The Grand challenge has a provision to conduct 20 challengesto develop a variety of software products addressing socio-economic challenges.

Start-up Accelerator Programme of Meit Y for Product Innovation, Development and Growth (SAMRIDH): SAMRIDH, implemented by MeitY (Minitry of Electronics and Information Technology) under its Start-up Hub known as MSHis aimed at creating a conducive platform to Indian Software Product star-ups to enhance their products and securing investments for scaling their business.

Next Generation Incubation Scheme (NGIS): The objective of the scheme is to create a vibrant software product ecosystem to complement the robust IT Industry for continued growth, new employment and enhance competitiveness.

17.10 ANSWERS TO CHECK YOUR PROGRESS

A. 3)	A-d;	B-b;	C-a;	D-c.	
4)	1. False;	2. True;	3.True;	4. True;	5. True.
B. 3)	1.True;	2. False;	3. False;	4. True;	5. True

17.11 TERMINAL QUESTIONS

1. Explain the various components of IT industry in India.
2. Describe the facilitators of growth of software sector in India.
3. Describe the status of Telecommunications Industry in India.
4. Explain the market players of telecommunications in India.
5. Explain the various ICT Products.
6. Describe the Government support to development of ICT products.