Industrial Policy; Importance and Impact on Manufacturing

A. Divyasri[1], D. Hakkifa[2], D. Surabi[3], J. Janavi[4], T. Mukilan[5], P. Reshma[6], A. Kalaivani[7]
[1,2,3,4,5,6,7] Dhanalakshmi Srinivasan University School of law

***Abstract*—Industrial policy is critical in driving manufacturing growth and boosting the economy. It establishes a framework for promoting investment, increasing industrial productivity, creating jobs, and accelerating technical advancement. Manufacturing is an essential sector since it helps to drive economic growth, exports, innovation, and the development of supporting sectors. Effective industrial policies can promote a favorable business climate by improving infrastructure, simplifying rules, providing financial aid, developing skills, and advancing technology. The expansion of small and medium-sized businesses also benefits manufacturing by creating jobs and improving supply chains. Modern measures like industrial corridors, digitalization, improved logistics, and investment promotion can help domestic industries compete more effectively. However, manufacturing growth faces various hurdles, including inadequate infrastructure, high production costs, a lack of trained labor, and limited access to However, manufacturing growth faces a number of hurdles, including inadequate infrastructure, high production costs, a skilled labor shortage, limited access to finance, technical gaps, and rising global competitiveness. Environmental issues and the need for sustainable production demand more attention. To promote equitable and sustainable manufacturing growth, industrial policy should prioritize innovation, R&D, talent upgrading, infrastructure development, financial access, and ease of doing business. Increased engagement in global value chains can help boost exports and attract investment. Simultaneously, sustainable technology and resource efficiency should be promoted in order to lessen environmental impact. A concerted effort involving the government, industries, and other stakeholders is required to create a competitive manufacturing sector. To summarize, a well-designed industrial policy may spur manufacturing growth, generate jobs, boost productivity, promote exports, and build economic resilience.**

***Index Terms*—Industrial Development, Manufacturing growth, Employment generation Sustainable development, technology, improvement, importance, growth, productivity, employment, labour.**

I. INTRODUCTION

A key component of both structural change and economic growth is industrialization. It includes the expansion of employment possibilities, investment, infrastructural development, technical advancement, and manufacturing activity growth. Traditional cottage and small-scale production has given way to contemporary, technologically advanced, and internationally competitive manufacturing in India. National income, productivity, exports, employment creation, and the growth of auxiliary industries like MSMEs and services are all greatly impacted by industrial growth.

This development is guided and encouraged in large part by industrial strategy. It offers a framework for public and private sector involvement, infrastructure development, investment, regulation, and technical advancement. Good industrial policies may enhance supply chains, foster innovation, stimulate both domestic and foreign investment, and make doing business easier. Good industrial policies may enhance supply chains, foster innovation, stimulate both domestic and foreign investment, and make doing business easier. Therefore, attaining inclusive and sustainable economic development depends on the expansion of manufacturing. Automation, artificial intelligence, digitalization, robotics, and sustainable technologies are being adopted by industries more and more in the current era of Industry 4.0 and the developing Industry 5.0. India therefore requires an industrial policy that integrates technological advancement, talent development, environmental protection, economic growth, and global competitiveness. To build a robust and sustainable manufacturing sector, the government, businesses, and other stakeholders must work together.

II. EVOLUTION OF INDUSTRY BEFORE INDUSTRY

The first modern jute mill was founded in Rishra, near Calcutta, in 1855.Early commercial coal extraction occurred in Raniganj, West Bengal, around 1774. Before Industry (Prior to 1760) Most individuals worked in small-scale agriculture. Making Goods: Artisans created products by hand. Families used simple instruments at home to produce supplementary commodities (cottage industry).People used muscle, animals, wind, or water wheels as their power source. Cotton textiles were the first modern automated industry established in British India. The first cotton mill was built in 1818 at Fort Gloster in Calcutta, but C.N. Davar founded the Bombay Spinning and Weaving Co. in Mumbai in 1854, which was the first successful, large-scale commercial cotton mill. Gunpowder and Ordnance: The British East India Company established early military production facilities, including the Gunpowder Factory in Ichapore (1787) and the Gun Carriage Agency in Cossipore (1801).Cotton textiles were first attempted in Calcutta in 1818, and they flourished extensively in Bombay beginning in the 1850s.Commercial tea growing and processing began in Assam in 1837, with the formation of the Assam Company. The first modern jute mill was developed in Rishra.[1]

INDUSTRY DEVELOPMENT: Prior to and Following
Prior to the Industrial Revolution
The majority of labor is manual, Production on a small scale, Conventional technology, Few job possibilities, Low output, Inadequate infrastructure,

Restricted foreign and domestic investment, The primary concentration was
on local markets. Insufficiently skilled labor, Increased reliance on conventional resources.

III. AFTER INDUSTRY

From the mid-18th century to 1830 (First), Britain saw a shift from hand tools to water and steam-powered equipment, with a focus on textiles and iron. Steel, electrical power, and the assembly line enabled mass production from the mid-nineteenth to early twentieth centuries (second).1970s (Third): The introduction of automation and electronics through computers and information technology systems. The present era (Industry 4.0 / 5.0) includes cyber-physical systems, the Internet of Things (IoT), and human-centric sustainable production.[2]

INDUSTRY DEVELOPMENT: Prior to and Following:-
The Development of Industry We extensively use automation and machines. Mass and large-scale manufacturing AI and cutting-edge digital technology More job possibilities Increased efficiency and productivity Better infrastructure for industry More chances to invest Exports and international markets Increased emphasis on technical abilities Increased adoption of green and sustainable technology.

IV. IMPORTANCE OF INDUSTRY

Encourages economic growth and development, Creates employment opportunities, Increases output and productivity, Promotes innovation and technical advancement, Boosts exports and international investment, Encourages the growth of MSMEs and supporting industries, Strengthens infrastructure and supply linkages, Improves the overall standard of existence.[3]

V. IMPROVEMENTS ARE REQUIRED

Improve transportation, power, and industrial infrastructure, Simplify government regulations and clearances, Provide MSMEs with easier access to finance and credit, Enhance technical education and skills development, Promote research, innovation, and current technologies, Promote digitalization,

[1] Department for Promotion of Industry and Internal Trade (DPIIT), Government of India, Industrial Policy.

[2] NCERT, The Age of Industrialisation, factories and early industrial development in India.

[3] Ministry of MSME, Government of India, role of MSMEs in employment and industrial growth.

automation, and smart manufacturing, Reduce production costs and increase competitiveness, Promote green technology and sustainable production, Improve India's integration into global value chains.

VI. INDUSTRIAL POLICY

Meaning of Industrial Policy
Industrial policy refers to the government's policies, rules, and methods for developing, regulating, and growing a country's industries. It establishes the role of the public and private sectors and promotes industrial development.

Importance
Economic growth increases industrial production and boosts the economy, Employment Generation – Generates direct and indirect job opportunities, Production Growth – Promotes home production while reducing reliance on imports. Investment attracts both domestic and foreign investment. Technological development encourages creativity, research, and advanced technology. Exports boost the quality and competitiveness of Indian products in international markets. MSME Development – Helps small and medium-sized businesses grow and enhance their supply chains. Balanced growth – Encourages industrial growth throughout areas.

Improvements Are Required
Improve infrastructure, including electricity, roads, and transportation.
Simplify the laws, regulations, and approval procedures, Provide easier financing and lending options, particularly for MSMEs. Encourage skill development and technical education, Encourage research, innovation, and digitalization, Support automation and sophisticated industrial technology, Reduce production costs to increase global competitiveness, Promote, environmentally friendly and sustainable industries, Increase access to global value chains and export markets.[4]

IMPORTANCE OF MANUFACTURING GROWTH
Manufacturing is vital because:-
Creates large-scale employment, Increases the national revenue and GDP, Reduces reliance on foreign products.
Increases exports, Develops supporting industries and micro, small, and medium enterprises, Promotes technical advancement, Enhances infrastructural and economic development.[5]

VII. IMPROVEMENTS ARE NEEDED

Simplify business rules and licensing procedures, Improve the roads, ports, power, and digital infrastructure, Provide MSMEs with easier and more inexpensive credit, Encourage skill and vocational training, Encourage research, innovation, and current technologies, Attract foreign direct investment with stable and transparent policies, Strengthen domestic supply chains and lower production costs, Encourage environmental sustainability and green production, Increase the ease of doing business, Encourage industries to use automation and Industry 4.0 technologies.[6]

VIII. CONCLUSION

Industrial policy and industrial expansion are strongly related to a country's economic and social development. The transition from conventional manual production to mechanized manufacturing and current digital technology has resulted in improved productivity, employment, investment, and international trade. A strong manufacturing sector also benefits MSMEs by developing supply chains, encouraging technical innovation, and strengthening the overall economic structure. However, manufacturing growth continues to encounter problems such as inadequate infrastructure, high production costs, a skilled labor shortage, restricted access to finance, technical gaps, global competitiveness, and environmental concerns. These issues can be addressed by improving infrastructure, simplifying laws, making finance more cheap,

[4] DPIIT, Government of India, Industrial Policy, objectives of productivity, employment and international competitiveness.

[5] Ministry of MSME, Government of India, role of MSMEs in manufacturing and industrial growth.
[6] DPIIT, Government of India, National Manufacturing Policy.

developing skills, conducting research and development, digitalizing, and increasing the usage of Industry 4 technologies. As a result, India's industrial policy should focus on developing a competitive, innovative, inclusive, and ecologically friendly manufacturing sector. Greater integration with global value chains, export promotion, technical innovation, and green production can all help to boost India's global economic position. A well-designed and well implemented industrial policy may boost productivity, create jobs, attract investment, and support long-term economic growth.