Mains Practice Question

Q. Discuss the challenges faced by India's manufacturing sector in competing globally. What strategies can be adopted to enhance its competitiveness? **(250 words)**

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Approach

- Introduce the answer by briefing the status of India’s manufacturing sector
- Delve into challenges faced by India's manufacturing sector in competing globally
- Suggest strategies that can be adopted to enhance its competitiveness
- Conclude positively.

Introduction

According to the **Economic Survey 2023-24,** manufacturing remained at the forefront of the Indian industrial sector achieving an average annual **growth rate of 5.2%** in the last decade employing **11.4% of India’s total workforce.**

- However, the sector faces multifaceted challenges that hinder its full potential in the global market.

Body

Challenges Faced by India's Manufacturing Sector in Global Competition:

- **Infrastructure Constraints**
  - **Inadequate power supply and frequent outages:** Many manufacturing units face regular power cuts, leading to production delays and increased costs due to diesel generators.
  - **Poor transportation networks and logistics**: India's logistics cost (**14% of GDP)** is significantly higher than in developed countries (8-10%).
    - The **National Logistics Policy 2022** aims to address this, but implementation remains a challenge.
  - **Limited access to modern ports and airports:** Despite improvements, India's port infrastructure lags behind global standards.
    - The average turnaround time for ships at Indian ports is **2.1 days** affecting export competitiveness.
- **Skill Gap**
  - **Shortage of skilled workforce**: Only **4.7% of India's workforce h**as undergone formal skill training, compared to **96% in South Korea.**
    - This leads to lower productivity and quality issues in manufacturing.
  - **Mismatch between industry requirements and available skills:** The rapidly evolving manufacturing sector, especially with **Industry 4.0 technologies,** faces a shortage of workers with relevant skills in areas like **robotics, AI, and data analytics.**
  - **Inadequate focus on vocational training:** Despite initiatives like Skill India, the

enrollment in **Industrial Training Institutes (ITIs)** has not kept pace with industry demand.

- **Regulatory Hurdles**
  - **Complex labor laws:** The implementation of four labor codes **(Code on Wages, Industrial Relations Code, Social Security Code, and Occupational Safety, Health and Working Conditions Code**) has been delayed since their release, creating uncertainty for businesses.
  - **Land acquisition challenges:** The **Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013,** while protecting farmers' rights, has made land acquisition for industrial purposes more time-consuming and expensive.
- **Limited Access to Finance and Technology Adoption**
  - **Challenges in accessing credit for MSMEs:** Only **16% of MSMEs** have access to formal credit, hindering their growth and competitiveness.
  - **Low R&D investment:** India's R&D expenditure as a percentage of GDP is around **0.7%,** significantly lower than **China (2.4%) and the US (3.1%).**
    - This impacts innovation and competitiveness in high-tech manufacturing.
- **Inadequate focus on innovation**: India ranked **40th in the Global Innovation Index 2023,** indicating a need for greater emphasis on fostering innovation in manufacturing processes and products.

Strategies to Enhance Competitiveness:

- **Develop a Comprehensive National Manufacturing Strategy:** Create a **long-term vision (20-30 years)** like **Ireland** for India's manufacturing sector, focusing on **emerging technologies and future global demands.**
  - Develop smart manufacturing hubs with **integrated 5G networks, IoT ecosystems, and advanced logistics facilities.**
  - Create a **national data infrastructure to support AI** and machine learning applications in manufacturing.
- **Revolutionize Skill Development:** Develop a national skills database to match industry needs with available talent in real-time.
  - **Integrate gig economy platforms with manufacturing t**o allow flexible, project-based skilled labor deployment.
- **Foster a Culture of Innovation**: Establish sector-specific innovation challenges with **substantial rewards** to solve critical manufacturing problems.
  - Develop a **patent box regime** to incentivize commercialization of innovations in manufacturing.
- **Enhance Financial Ecosystem**: Develop a **manufacturing-focused venture capital fund** to support high-risk, high-potential manufacturing startups.
  - Create a dedicated manufacturing bond market to provide **long-term, stable financing for capital-intensive projects.**
- **Strengthen Global Integration**: Develop specialized emerging technologies zones focused on integrating with specific global value chains (e.g., **semiconductors, electric vehicles)**.
  - Create a '**Vocal for Local-Local to Global' brand strateg**y, emphasizing quality and innovation.
- **Promote Sustainable Manufacturing:** Develop a comprehensive **carbon pricing mechanism** for the manufacturing sector to incentivize green technologies.
  - Create a **national circular economy platform** to facilitate industrial symbiosis and waste exchange.
  - Establish **green manufacturing standards** and certification processes aligned with global best practices.

Conclusion

India's journey to manufacturing excellence is not just about overcoming current challenges, but about seizing the future. The proposed strategies represent a paradigm shift – from **playing catch-up to leapfrogging into leadership.** This transformation is not merely an economic imperative; it's a pathway to **technological sovereignty, job creation, and sustainable development.**