

# Evolution of Industries in United Province, India

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## ABSTRACT

This abstract presents a brief overview of the evolution of industries in the region known as United Province, later renamed Uttar Pradesh, till present times. The industrial evolution in the region of United Province, now known as Uttar Pradesh, has witnessed significant transformation and diversification over the years. Historically, the region had a predominantly agrarian economy, with agriculture, textiles, handicrafts, and mining as major industries. During the pre-independence era, British colonial policies heavily influenced the industrial landscape, focusing on raw material extraction to support British industries.

Post-independence, Uttar Pradesh began a shift towards industrialization, striving for self-sufficiency and economic growth. The early phase saw the development of basic industries, including steel, textiles, and heavy machinery. However, import substitution policies limited growth and innovation. In the 1990s, economic reforms and liberalization initiatives were introduced, spurring a new phase of industrial development. Uttar Pradesh, as part of India, transitioned to a more market-oriented economy, encouraging private investment, foreign collaborations, and modernization of industries. The information technology (IT) sector gained prominence, along with services, automotive manufacturing, and pharmaceuticals. In recent years, Uttar Pradesh has focused on promoting renewable energy, sustainability, and e-commerce. The state has made strides in solar power generation and has attracted investments in the automotive sector. Additionally, the growth of e-commerce and digital services has been notable, transforming the retail landscape and creating new opportunities for businesses. We also provide a concise summary of the potential impact and benefits of introducing a high-speed rail system in Uttar Pradesh and the North Zone of India. The high-speed rail, characterized by its efficiency, reduced travel times, and environmental sustainability, has the potential to revolutionize transportation, drive economic growth, and enhance disaster resilience in the region. Key aspects include improved connectivity, economic development through enhanced trade and tourism, sustainability benefits, disaster resilience, and increased global competitiveness. Integrating high-speed rail could lead to a more sustainable, efficient, and interconnected transportation network, contributing to the overall development and advancement of the region. Further, it emphasizes the importance of staying informed about evolving developments and government initiatives in the domain of high-speed rail for the most accurate and up-to-date information. Looking ahead, Uttar Pradesh continues to evolve industrially, diversifying its sectors and integrating technology to drive growth. Challenges such as infrastructure development, skill enhancement, and sustainable practices remain at the forefront, necessitating strategic policies to navigate the evolving industrial landscape effectively.

**KEYWORDS:** *United Province, Uttar Pradesh, high-speed rail, major industries, strategic policies, infrastructure development, skill enhancement*

## INTRODUCTION

### 1. EVOLUTION OF INDUSTRIES IN SOUTH ASIA

The evolution of industries in South Asia has been shaped by historical, economic, social, and political factors. South Asia is a region known for its diverse economies, cultures, and demographics, and its

industrial evolution has gone through several key phases.

#### A. Pre-Independence Era (Before 1947):

Before gaining independence from British colonial rule, South Asia's economy was largely agrarian-based. Industries were relatively limited and centered

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around agriculture, textiles, handicrafts, and mining. British colonial policies prioritized raw material extraction and limited industrial development within the region.

### **B. Post-Independence and Early Industrialization (1947-1980s):**

After gaining independence, South Asian countries focused on industrialization as a means to boost their economies and reduce dependency on foreign goods. Governments initiated policies to encourage domestic industries, including import substitution and protectionist measures. Key industries during this phase included textiles, steel, food processing, and basic manufacturing.

### **C. Liberalization and Economic Reforms (1990s onwards):**

In the 1990s, many South Asian countries shifted towards economic liberalization and market-oriented policies. Governments began reducing barriers to trade, encouraging foreign investment, and privatizing state-owned enterprises. This led to diversification and growth in various sectors, including information technology, telecommunications, pharmaceuticals, and services.

### **D. Information Technology and Software Services (late 1990s onwards):**

South Asia, particularly India, emerged as a global hub for information technology and software services. India's IT sector, with its competitive workforce, played a significant role in providing software development, outsourcing, and business process outsourcing services to international clients.

### **E. Textiles and Garments Industry (ongoing):**

Textiles and garments have remained crucial industries in South Asia, particularly in countries like Bangladesh, India, and Pakistan. These nations are major exporters of textiles and apparel, benefiting from relatively low labor costs and strong global demand for affordable clothing.

### **F. Automotive and Manufacturing (ongoing):**

South Asian countries, notably India and Pakistan, have been focusing on developing their automotive and manufacturing sectors. They are attracting investments from international automobile manufacturers, contributing to domestic production and export growth.

### **G. Renewable Energy and Sustainability (ongoing):**

With a growing emphasis on sustainability and combating climate change, South Asian countries are increasingly investing in renewable energy sources such as solar and wind. Governments are setting targets for renewable energy generation and attracting investments in this sector.

### **H. Pharmaceuticals and Healthcare (ongoing):**

South Asian countries, particularly India, have a thriving pharmaceutical industry. They are major global suppliers of generic drugs, contributing significantly to the global healthcare market.

### **I. Financial Services and Fintech (ongoing):**

The financial services sector, including banking, insurance, and fintech, is experiencing growth and innovation in South Asia. Digital payment systems and fintech startups are gaining traction, providing financial services to a broader segment of the population.

Overall, South Asia's industrial evolution reflects a transition from agrarian-based economies to diverse industrial sectors driven by globalization, technological advancements, and changing consumer preferences.

## **2. EVOLUTION OF INDUSTRIES IN INDIA**

The evolution of industries in India can be broadly categorized into various phases, each characterized by significant economic, technological, and policy changes.

### **A. Pre-Independence Era (Before 1947):**

Before gaining independence from British colonial rule, India had a predominantly agrarian economy. The major industries were agriculture, handicrafts, textiles, and mining. The economy was heavily geared towards the production of raw materials to supply British industries.

### **B. Early Industrialization and Import Substitution (1947-1990s):**

After independence in 1947, India focused on developing a self-reliant industrial base. The government followed a policy of import substitution industrialization (ISM), encouraging the domestic production of goods to reduce dependency on imports. Industries such as steel, heavy machinery, public sector enterprises, and basic manufacturing saw significant growth during this period.

### **C. Green Revolution and Agricultural Modernization (1960s onwards):**

The Green Revolution, starting in the mid-1960s, introduced modern agricultural techniques, high-yield crop varieties, and improved irrigation. This led to a substantial increase in agricultural productivity and transformed India from a food-deficit nation to a food surplus nation.

### **D. Liberalization and Economic Reforms (1991 onwards):**

The most significant shift in India's economic history occurred in 1991 when the government initiated economic reforms to liberalize the economy. The

reforms included opening up sectors to foreign investment, reducing trade barriers, deregulation, and privatization. This shift paved the way for a more market-oriented economy.

### **E. Information Technology and Software Services (late 1980s onwards):**

India emerged as a global IT and software services hub during the late 1980s and 1990s. The IT sector gained momentum due to a skilled English-speaking workforce and became a major player in software development, IT services, and business process outsourcing (BPO).

### **F. Services Sector Boom (2000s onwards):**

The services sector, including IT, telecommunications, healthcare, education, tourism, and financial services, became a dominant contributor to India's GDP. This transition marked a shift towards a more service-oriented economy.

### **G. Automotive and Manufacturing (2000s onwards):**

India's automotive and manufacturing sectors have seen substantial growth, attracting investments from domestic and international companies. The country became a major hub for automobile production and manufacturing of engineering goods.

### **H. Renewable Energy and Clean Technologies (2010s onwards):**

In recent years, India has increasingly focused on renewable energy and clean technologies to address environmental concerns and reduce dependency on fossil fuels. Investments in solar, wind, and other renewable energy sources have been significant.

### **I. Pharmaceuticals and Healthcare (ongoing):**

India's pharmaceutical industry has become a global leader in the production of generic drugs and vaccines. The country is a major supplier of affordable healthcare products worldwide.

### **J. E-commerce and Digital Services (ongoing):**

The advent of the internet and widespread digitalization has given rise to a thriving e-commerce industry in India, providing a platform for online retail, food delivery, travel services, and more.

India's industrial evolution reflects a transition from an agrarian economy to a diversified industrial landscape, with a growing emphasis on services, technology, and sustainable practices. Policy reforms and globalization have played significant roles in shaping India's industries over the years.

## **3. ROLE OF I-WAY, E-WAY AND INFRASTRUCTURE IN UTTAR PRADESH**

India's digital public infrastructure refers to the framework and foundational systems established by

the government to facilitate digital services and connectivity across the nation. These initiatives aim to enhance accessibility, efficiency, and inclusiveness in various sectors like governance, finance, education, healthcare, and more. Here are some key components of India's digital public infrastructure:

### **A. Aadhaar (UIDAI - Unique Identification Authority of India):**

Aadhaar is a 12-digit unique identity number issued to Indian residents, based on their biometric and demographic data. It serves as a foundational identity for various government services, financial transactions, and welfare programs.

### **B. Digital Payments and Unified Payments Interface (UPI):**

UPI is a real-time payment system that allows users to link multiple bank accounts to a single mobile application, facilitating seamless peer-to-peer and peer-to-merchant transactions. It has greatly contributed to the growth of digital payments in India.

### **C. Goods and Services Tax Network (GSTN):**

GSTN is a digital platform that manages the implementation of the Goods and Services Tax (GST) regime in India. It facilitates the filing of taxes, invoice matching, and provides a single interface for taxpayers and tax authorities.

### **D. Digilocker:**

Digilocker is an online platform provided by the government to store, access, and share digital copies of documents and certificates securely. It reduces the need for physical documents and enhances efficiency in various processes.

### **E. e-Governance Initiatives:**

The government has implemented several e-governance initiatives to digitize various services and improve public service delivery. Examples include the National e-Governance Plan (NeGP) and MyGov platform, enabling citizens to participate in governance.

### **F. National Optical Fiber Network (NOFN) and BharatNet:**

These initiatives aim to provide broadband connectivity to rural and remote areas, promoting digital inclusivity and enabling access to digital services and information.

### **G. GeM (Government e-Marketplace):**

GeM is an online marketplace that facilitates procurement of goods and services by government departments, organizations, and PSUs. It streamlines the procurement process and promotes transparency.

## **H. National Payments Corporation of India (NPCI):**

NPCI is an umbrella organization that operates various retail payments and settlement systems in India. It has developed platforms like UPI, National Electronic Funds Transfer (NEFT), Immediate Payment Service (IMPS), and more.

## **I. Pradhan Mantri Jan-Dhan Yojana (PMJDY):**

PMJDY is a financial inclusion initiative that aims to provide every household with access to basic banking services, including a bank account, debit card, and insurance coverage.

## **J. e-Healthcare Initiatives:**

The government has launched digital healthcare initiatives such as National Health Portal, Telemedicine Services, and e-Hospital platforms to enhance healthcare accessibility and delivery.

## **K. Digital India:**

Digital India is a flagship initiative that aims to transform India into a digitally empowered society and knowledge economy. It encompasses a wide range of initiatives to connect citizens, provide digital services, and foster digital literacy and skills.

These digital public infrastructure initiatives collectively aim to drive digital transformation, enhance citizen services, promote financial inclusion, and propel economic growth in India.

## **4. ECONOMY OF 1<sup>ST</sup> GENERATION REFORMS: -**

We can provide a general understanding of the role of digital infrastructure and e-commerce (e-way) in a region, which can be adapted to the context of any geographical area i.e. United Province, including a state or province.

### **A. Digital Infrastructure (i-way):**

Digital infrastructure, often referred to as "i-way," includes the various components that support the seamless flow of digital information and services. This infrastructure encompasses:

- Internet Connectivity: Providing reliable and high-speed internet access to urban and rural areas.
- Telecommunication Networks: Building robust telecom networks to facilitate communication and data transfer.
- Data Centres: Establishing data storage and processing facilities to support digital services and applications.
- Cybersecurity Measures: Implementing security measures to protect digital assets and ensure data privacy and integrity.

The role of i-way is fundamental in enabling e-governance, e-commerce, e-education, telemedicine, and overall digital transformation within a region, contributing to economic growth, social development, and improved quality of life.

### **B. E-commerce and E-way:**

E-commerce, often referred to as "e-way" in some contexts, plays a crucial role in the digital economy. It involves conducting commercial transactions electronically over the internet. This includes:

- Online Marketplaces: Providing platforms for businesses to showcase and sell their products or services online.
- Digital Payments: Facilitating secure and seamless digital transactions using various payment gateways and mobile payment systems.
- Logistics and Supply Chain Management: Ensuring efficient and timely delivery of products through optimized logistics and supply chain solutions.
- Customer Service and Support: Offering online customer service and support to address queries and concerns of consumers.

E-commerce contributes to economic growth by expanding market reach for businesses, creating employment opportunities, and providing consumers with convenient access to a wide range of products and services.

## **5. NEW ECONOMY OF UTTAR PRADESH IN 2<sup>ND</sup> GENERATION REFORMS: -**

In the context of a specific region like a province or state, the development and integration of robust i-way (digital infrastructure) and the growth of e-commerce (e-way) are essential for promoting economic development, attracting investment, enhancing government services, and improving the overall well-being of the population.

1. Market Expansion: Enabling businesses, including SMEs and artisans, to expand their market reach and sell products beyond their local regions through online platforms.
2. Digital Payments: Encouraging digital transactions and promoting online payment methods to facilitate secure and convenient financial transactions for both businesses and consumers.
3. Job Creation and Skill Development: Generating employment opportunities in logistics, customer service, digital marketing, and related sectors, contributing to skill development and economic growth.

4. **Tourism and Handicraft Promotion:** Promoting the region's unique handicrafts, arts, and tourism through e-commerce, attracting a global audience and boosting local artisans and industries.

Efforts to improve digital infrastructure (i-way) and promote e-commerce (e-way) are essential for enhancing economic growth, fostering innovation, creating employment opportunities, and improving the overall standard of living in the North Zone of India. For the most up-to-date and region-specific information, I recommend referring to the latest government policies and initiatives related to digital infrastructure and e-commerce in the North Zone.

## **6. ROLE OF HIGH-SPEED RAIL IN JAPAN AND ITS FUTURE**

High-speed rail in Japan, often referred to as Shinkansen, has played a significant role in transforming the country's transportation landscape and has had a considerable impact on various aspects of Japanese society and the economy. Here are the key roles and impacts of high-speed rail in Japan:

### **A. Efficient and Fast Transportation:**

The Shinkansen is known for its high speed, punctuality, and efficiency. It allows for quick travel between major cities, making it a preferred mode of transportation for both business and leisure travelers. Passengers can move swiftly between cities, saving considerable time compared to traditional train services or other modes of transport.

### **B. Regional Connectivity:**

Shinkansen networks connect major cities and regions across Japan, fostering better connectivity between urban centers and rural areas. This enhanced connectivity stimulates economic development, as it allows for easier access to business opportunities, markets, and workforce.

### **C. Economic Growth and Development:**

Shinkansen has contributed significantly to the economic growth of the regions it serves. The development of stations and associated infrastructure, along with the businesses that thrive around these stations, has created jobs and increased economic activity. It has also attracted tourism and investment, boosting local economies.

### **D. Promotion of Tourism:**

The Shinkansen has made it easier for tourists to explore different regions of Japan efficiently. Tourists can quickly travel to major tourist destinations like Kyoto, Osaka, Hiroshima, and more, promoting tourism revenue and enhancing the experience for visitors.

### **E. Environmental Benefits:**

Shinkansen is considered a relatively environmentally friendly mode of transportation. It's an energy-efficient alternative to air travel or road transport, reducing the overall carbon footprint and congestion on roads and in the air.

### **F. Technological Advancements:**

The development and operation of Shinkansen have pushed the boundaries of railway technology. Japan has continuously improved and refined the Shinkansen trains and their tracks, setting a global standard for high-speed rail. Technological advancements from the Shinkansen program have been exported and applied to other high-speed rail systems worldwide.

### **G. Disaster Resilience and Safety:**

The Shinkansen system has been designed with earthquake safety in mind. It has proven to be resilient during earthquakes and has been used for post-disaster relief efforts. Shinkansen is equipped with earthquake detection systems, automatic braking, and other safety features to mitigate risks during natural disasters.

### **H. Urban Development and Regeneration:**

Shinkansen stations have become hubs for urban development and regeneration. They often serve as catalysts for real estate development, attracting commercial and residential projects around station areas, further contributing to economic growth.

### **I. Global Reputation and Soft Power:**

The Shinkansen has bolstered Japan's global reputation for technological innovation, efficiency, and reliability. It is a symbol of Japanese engineering excellence and contributes to the country's soft power and influence on the global stage.

In summary, Japan's high-speed rail system, Shinkansen, has had a profound impact on transportation, economic development, tourism, technology, and the overall well-being of Japanese society. Its efficiency, safety, and positive influence on regional development make it a key component of Japan modern infrastructure

## **7. ROLE OF HIGH-SPEED RAIL IN FUTURE IN UTTAR PRADESH INCLUDING NORTH ZONE**

Specific plans or developments regarding a high-speed rail network in Uttar Pradesh or the broader North Zone of India may be in Future Uttar Pradesh. However, I can discuss the potential roles and benefits of high-speed rail in the future, considering its potential implementation in Uttar Pradesh and the North Zone.

### **A. Enhanced Connectivity:**

Introducing high-speed rail in Uttar Pradesh would significantly enhance connectivity between major cities and regions within the state and across the North Zone. This improved connectivity would facilitate faster and more efficient travel, leading to increased economic and social interactions.

### **B. Reduction in Travel Time:**

High-speed rail systems are known for their speed and efficiency. Implementing such a system would drastically reduce travel times between major cities, making daily commuting, business trips, and tourism more convenient and attractive.

### **C. Economic Growth and Development:**

High-speed rail could potentially drive economic growth by boosting regional and inter-regional trade. It would attract investment, spur job creation, and promote business activities by allowing easy and quick access to markets and commercial hubs.

### **D. Tourism Promotion:**

An efficient high-speed rail network can significantly boost tourism by providing fast and convenient transportation to popular tourist destinations within Uttar Pradesh and nearby regions. This would attract both domestic and international tourists, contributing to the tourism industry's growth.

### **E. Environmental Benefits:**

High-speed rail is relatively more environmentally friendly compared to other modes of transportation, such as road or air travel. It can contribute to a reduction in carbon emissions and help alleviate environmental concerns, making it a sustainable transport option.

### **F. Decongestion and Traffic Reduction:**

By offering an attractive alternative to road travel, high-speed rail can help decongest major highways and reduce road traffic. This would lead to a more efficient transportation network and improved road safety.

### **G. Technology Transfer and Skill Development:**

The implementation of a high-speed rail system would require expertise and technology transfer. It can promote skill development and knowledge acquisition in areas related to rail infrastructure, operation, and maintenance.

### **H. Disaster Resilience:**

High-speed rail systems are typically designed with disaster resilience features. In regions prone to natural disasters, such as earthquakes, having a disaster-resilient mode of transportation like high-speed rail is crucial for quick and efficient evacuation and relief efforts.

### **I. Global Competitiveness and Image:**

Introducing high-speed rail would enhance the global competitiveness of Uttar Pradesh and the North Zone. It would position the region as technologically advanced, attracting investment and partnerships on an international level.

While specific plans and developments may evolve over time, considering these potential roles and benefits can shed light on the advantages of integrating high-speed rail in the future transportation infrastructure of Uttar Pradesh and the North Zone. It is essential to refer to the latest and most authoritative sources for the most up-to-date and region-specific information regarding high-speed rail projects and initiatives.

### **CONCLUSION**

In conclusion, the evolution of industries in Uttar Pradesh, historically known as the United Province, signifies a journey from an agrarian-based economy to a diversified and modern industrial landscape. Over the years, the region has seen a shift from traditional sectors like agriculture, textiles, and handicrafts to embracing advanced industries driven by technological advancements and economic policies.

Post-independence, there was a concerted effort to industrialize and achieve self-sufficiency. However, it was the economic reforms of the 1990s that truly propelled Uttar Pradesh towards a more market-oriented economy. The liberalization policies opened doors to foreign investment, technological modernization, and a surge in various sectors such as information technology, services, manufacturing, and pharmaceuticals.

Recent developments underline the state's focus on sustainable and forward-thinking industries. Uttar Pradesh is making strides in renewable energy, particularly solar power, aligning with global sustainability goals. The state is also harnessing the potential of e-commerce and digital services, enhancing connectivity and opportunities in the retail and services sectors.

Challenges such as infrastructure development, ensuring sustainable practices, fostering innovation, and addressing the needs of a growing population persist. The success and continued evolution of industries in Uttar Pradesh will hinge on strategic planning, investment in skills and technology, and fostering an environment conducive to growth and sustainability. As the state moves forward, it remains essential to adapt to changing global trends, promote inclusivity, and leverage technological advancements for a prosperous industrial future in Uttar Pradesh.

In conclusion, the potential introduction of a high-speed rail system in Uttar Pradesh and the broader North Zone of India holds promising prospects for the region's economic growth, connectivity, sustainability, and disaster resilience. High-speed rail, characterized by its efficiency, reduced travel times, and environmental benefits, can play a pivotal role in transforming the transportation landscape and promoting various sectors. It is imperative to stay updated with the latest developments PPP mode (20%+40%+40%) initiatives for future and current information regarding high-speed rail projects in the region.

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