

## **E-Commerce and Logistics Revolution**

### **What is the issue?**

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- The e-commerce firms are driving many technological changes.
- The Centre must create an enabling logistics environment to benefit from them.

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### **What are the emerging developments?**

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- The global logistics sector is undergoing a quiet revolution.
- The key benefits are reduced costs, quick arrivals and complete tracking of goods.
- The new technologies like the Internet of Things (IoT) and people's changing preferences in buying goods online are driving this.

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### **Why is the logistics sector significant?**

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- Logistics cost includes all expenses in taking a product from factory to consumer.
- These include direct costs like transport cost or indirect costs like charges of freight forwarders, etc.
- Logistics cost is significant, and add on an average of 30 to 40% to the cost of the goods.

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- Thus, while world trade is about \$17 trillion, the global logistics sector has a turnover of \$5 trillion.

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- The logistics revolution will transform India's ocean shipping and trucking sectors.

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### **What are the limitations at present?**

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- The logistics sector currently is less automated.

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- Firms move light packets through the courier firms that do end-to-end job.

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- It takes within 1 to 3 days generally, but the costs are high.

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- Firms thus choose to ship large or less urgent consignments by sea.

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- It is cheap compared to the courier, but delivery takes more time.

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- This is because of complex shipping, and customs procedures.

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- It is also because over 70% of the logistics sector is in small, unorganised hands.

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- However, this model is set to change.

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- Many large firms are now entering the cargo business to offer worldwide door-to-door delivery.

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### **How is e-commerce a driving factor?**

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- The major push for logistics transformation comes from the online e-commerce firms like Alibaba and Amazon.

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- So far these firms have been focussing on flying light packets.

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- But people now prefer buying even bulky goods like foodgrains or steel online.  
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- The e-commerce firms have to use the ocean route to keep cost under control.  
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- But current long delivery times of sea transport do not help the fast-paced e-commerce delivery model.  
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- So, these firms plan to develop end-to-end supply chain for sea-based shipments also.  
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### How does technology help?

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- A range of technologies is making ship or truck journey more secure and efficient.  
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- This applies to a combination of the IOT, Block Chain, and Artificial Intelligence (AI).  
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- **IOT** - IOT sensors provide a unique internet address to each device they are attached to.  
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- They feed the location information into the global database.  
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- Data collated from the devices generate real-time weather and traffic advisory using AI tools.  
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- **Sensors** - Internet-connected sensors are placed on the individual packets/consignments.  
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- They make tracking possible across the supply chain.  
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- It also ensures against pilferage and contamination.  
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- Satellite trackers do this even when there is no mobile coverage.  
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- **Blockchain technology** - Data from the sensors can be uploaded on the blockchains.  
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- This allows everyone in the supply chain to view the condition of a packet during the journey.  
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- **Apps** - Return of empty ships and trucks after delivery of goods increases the cost by about 30%.  
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- Simple mobile apps now facilitate customers and owners to strike a quick deal to ensure near-total use of space.  
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## What lies ahead for India?

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- **Technology** - The variation in time for an export container moving from a factory to port ranges between 40-70 hours.  
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- The uncertain delivery time increases inventory and freight costs.  
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- India's logistics costs are 40% higher than in most developed countries.  
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- Incentivising the use of new tools will provide more certainty in cost and time of delivery.  
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- **Skilling** - The logistics revolution will lead to business consolidation leading to tough times for small players.  
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- About 7.5 million jobs are estimated to disappear in the US alone in the next 10 years.  
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- The situation in India will be no different, with e-commerce and logistics related changes.  
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- Logistics service providers/ small trucking and shipping firms must look to upgrade their skill.  
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- Changes in the logistics sector will deeply integrate India with global supply chains.  
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**Source: BusinessLine**

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