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WAREHOUSING TALK ■

Investment in automation drives efficiency in warehouse sector

Automation and robotics are revolutionising warehousing by enhancing efficiency, accuracy and safety, while reducing operational costs. Firms investing in these technologies gain an edge through faster order fulfilment and lower overhead expenses, says **Pratap Hazra, Founder, Beyond Sqfeet Supply Chain Solutions.**



CT Bureau

How are automation and robotics impacting warehousing operations?

Below are the key areas where automation is making a significant impact:

Enhanced speed and efficiency: Automated Guided Vehicles (AGVs) & Autonomous Mobile Robots (AMRs), move inventory within warehouses thereby reducing the need for manual transportation and speeding up operations. Automated conveyor and robot sorting systems streamline order processing, reduce delays in picking and packing.

Improved accuracy and reduced errors: AI-powered robotic arms equipped with vision systems can identify, pick, and pack items with precision and reduce human errors. RFID and IoT tracking enhance smart inventory management through RFID

tags and IoT sensors ensuring real-time tracking of goods, minimising misplacement and stockouts.

Cost reduction: Robots handle repetitive and physically demanding tasks, by reducing reliance on manual labour, while increasing productivity. Automated vertical storage systems maximise warehouse space by using AI to arrange products efficiently.

Increased warehouse safety: Automation minimises human involvement in hazardous tasks, lowering injury risks. AI-powered robotics can predict equipment failures, preventing unexpected downtimes and accidents.

Sustainability and energy efficiency: Automation optimises inventory turnover and reduces expired or obsolete stock. Smart warehouses utilise Artificial Intelligence to optimise lighting, HVAC, and material flow and cuts down on energy consumption.

Automation and robotics revolutionise warehousing by enhancing efficiency, accuracy, and safety, while reducing operational costs.

Companies that invest in such advanced technologies gain a competitive advantage through faster order fulfilment and lower overhead expenses.

What role do GST and NLP play in warehousing efficiency?

GST-Impact on warehousing efficiency: Before GST



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implementation, a unified tax system removed the need for state-wise warehouses, allowing businesses to consolidate and build large, centralised distribution centres. Streamlined taxation reduces compliance costs, making warehouse operations cost-effective. Fewer checkpoints and seamless interstate transport reduces delays and improves pace of supply chains. Companies can now place warehouses based on demand and connectivity than tax considerations.

“AI-powered robots equipped with vision systems can pick and pack items with precision & cut errors.”

implementation, warehousing locations were driven by tax efficiency rather than logistics efficiency. Firms maintained multiple small warehouses in different states to avoid interstate taxes. After GST im-

NLP boosting warehousing and supply chain: The NLP aims to reduce logistics costs to 8 per cent by improving infra, digitalisation, and multimodal transport. MMLPs development will integrate rail, road, air, and waterways to enhance warehouse connectivity. ULIP enables real-time tracking, reducing storage inefficiencies. Both GST and NLP have transformed the sector by enabling warehouse consolidation, improving logistics infra, and reducing costs. These initiatives contribute to an efficient, resilient supply chain. ↴

