



Kale Logistics
Technology that Transforms

Warehouse Automation - A strategic catalyst



The changing paradigm of warehousing operations

The difference between traditional warehouses and modern day warehouses is stark. For many decades, traditional warehouses have mainly conducted manual and paper based processes. Enter technology! And a gamut of traditional warehouse operations have undergone a drastic paradigm shift. Right from gate-in to gate-out, the emergence of technology has completely transformed the warehousing operations. With escalated trade volumes, the encumbrance of warehouse operations has also increased. Unlike earlier times, when warehouses relied on simple manual processes and verbal contracts, today's scenario demands lean operational mechanisms that not just ensure smooth transfer of cargo, but also offer a host of value added services. Warehouse consumers demand and expect services such as consolidation, breaking up of cargo, packaging, labelling, bar coding, reverse logistics, assembling, packaging, storage for special goods etc., along with traditional warehousing operations.

Trends surrounding the warehousing operations

e-Commerce has resulted in escalated trade volumes across the world. Roles and functions of traditional logistics, supply chain players and their services has undergone severe transformation. This has led to emergence of some disruptive trends in warehousing like:

Technology adoption: In spite of the associated tangible benefits, the warehousing industry has displayed a rather mixed reaction to technology adoption. While many warehouse operators are investing in enterprise solutions like [PYXIS](#) or community platforms like UPLIFT from Kale Logistics Solutions, most mid and small sized warehouses are avoiding technology due to financial constraints and hassle of changing ongoing manual / semi-automated operations.

Need for differentiation: Value addition and differentiation are the means of sustenance today. Many warehouse operators offer value added services like kitting, product inspections, labelling, localization etc., in addition to traditional storage and retrieval functions. However, these often put undue financial pressures and added competition for warehouse enterprises that do not possess the necessary financial and operational means.

Global industry standards: Global logistics operations in countries who have ratified the WTO's Trade facilitation (TF) agreement, have transformed their operations as per the TF guidelines. With warehousing being a key component of logistics industry, many warehouse operators too have adopted measures to ensure compliance to TF policies and experienced reduced costs and stakeholder collaboration.



Integrated Logistics Centers: Regions that constitute major production or consumption centers are being well connected by rail and road systems. Warehouses are taking the centre stage in connecting these production/consumption centers with the markets. In China, this trend has enabled movement of containerized freight more effectively by connecting the local markets with rest of the world. In India, schemes like direct-port-delivery (DPD) are expected to speed up delivery of cargo containers to importers/consignee from the port terminal, thus saving close to INR 9-20 Thousand per container and reduce dwell time to approx.48 hrs.

Forming alliances: Logistics players forming alliances with warehouse partners, create competition for independent warehouse operators, especially the small or mid-sized warehouses. Apart from new market entrants, the tendency of existing 3PL enterprises to diversify their existing business in warehouse domain is also creating competition.

The Smart Warehouse – Need of the Day

Warehouses who are ready for investments and technology upgrades are adopting state of the art facilities and acclaimed Warehouse & Distribution Management Systems (WDMS). Solutions like for example [PYXIS](#) - a comprehensive web-based warehouse management system are gaining significant traction thanks to the changing environment of warehousing industry and inclination towards Trade Facilitation.

[PYXIS](#) is a stark example of an easily configurable electronic lodgment, which essentially encompasses specialized functions. Be it handling temperature controlled cargo, creating opportunity for advance shipment information, speedy and well-organised gate-in and gate-out of cargo, algorithm-based put away and pick processes; [PYXIS](#) has it controlled through a single implementation. Such a contemporary WDMS also contains mechanisms to handle complex business functions like invoicing, contact management etc. With advancement in Hand-Held Technology (HHT), RFID and GPS based devices; WDMS like [PYXIS](#) have become leaner, resulting in swift and speedy transactions. According to a research, top five concerns of a warehouse enterprise that can be curbed by simply employing a WDMS are:



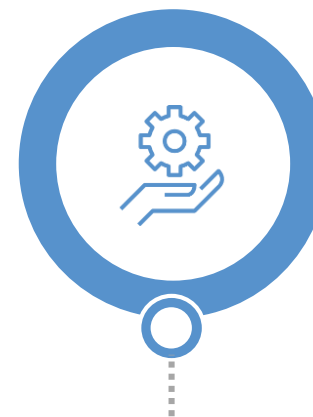
Inventory Accuracy



Inventory Location



Space Utilization/Warehouse
Layout

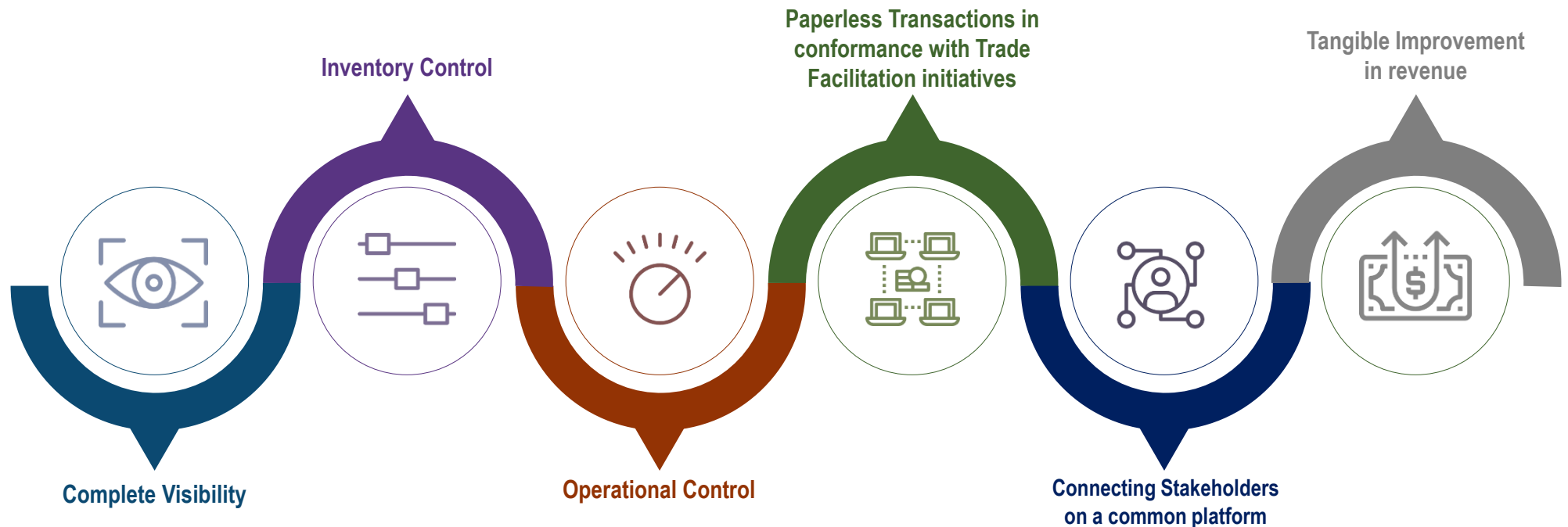


Redundant Processes



Picking Optimization

Warehousing Management Systems (WMS) function are the backbone of Warehousing operations. With smooth integration capabilities, they can easily be used in tandem with third party applications like, Tally-for financial transactions. Such systems also integrate with the production processes and are capable of assisting employees with day-to-day operations. A comprehensive Warehouse Management System covers various intricacies of warehouse operations like picking, packing, documentation, shipping and receiving, and inventory levels. In addition to these, today's WMS are also capable of integrating with communication systems like mobiles, tablets etc., thus providing a multiple platform usability. To sum up, technology has brought several tangible benefits to the warehousing operations, they include:



It is imperative to note that the global warehousing and storage market is forecasted to grow at 8.52% CAGR by 2019. Amidst such potential growth volumes, warehouse operators must accommodate growing consumer demands and combat competition, by adopting solutions that are leaner, automated and user-friendly. Moreover, such systems through third party integration help to optimize operations bringing complete visibility and tangible profitability. With the right technology support, today's warehouse operators can dedicate their efforts and time in focusing on strategy and business growth, rather than managing mundane operational processes.

About the Author

Nitin Master is a project management expert with more than two decades of experience in Customs and Freight forwarding operations. He brings techno functional expertise with path breaking solutions, catering to the Logistics domain. He has been instrumental in shaping state of the art logistics solutions and community platforms with his expert comprehension of the international trade. His expertise in product solutions play an important role in pre-sales, requirement analysis, solution design implementations and user training. Nitin's insight and vast experience has helped to improve product functionality and adoption among customers spanning across globe.