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Thought Leadership Series

Building an Automation Business Case for 3PLs

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Third-party logistics (3PL) companies continue to be one of the fastest-growing sectors of the logistics industry. 3PLs offer an attractive alternative to traditional warehouse operations, where a company outsources its entire inventory, distribution and shipping operations. While 3PLs have many of the same challenges as conventional distribution centers (DC), 3PLs also have unique issues such as service level agreements (SLAs), multiple client requirements, accurate reporting systems, ERP and value-added software integration and the availability of labor. 3PLs also carry the weight of caring for and managing inventory and customer satisfaction for their contracted partners and transparency in their operations.

With the demand for 3PLs continuing to rise, the 3PL market was valued at $1,142.7 billion in 2024; by 2032, it is expected to rise to $2,546 billion[1], making facility planning and operational design essential. Optimized facilities and flexible automation paired with scalable operations can lead to growth as new customers and contracts are acquired.

1. https://www.fortunebusinessinsights.com/third-party-logistics-market-105802

The Need for Flexible Automation

3PLs are unique in that their product mix can grow and shrink quickly. Radical changes in product dimensions, weight and characteristics can cause significant issues within a 3PL, as previously used automation tools might not fit current needs, leading some organizations to hesitate in investing in automation.

However, with the labor market continuing to tighten, flexible automation and technology are becoming more imperative to drive cost controls, inventory management and productivity.

A recent 3PL study and survey[2] found that 3PLs ranked the following technologies, systems or tools as the most important to successfully serve customers in 2026:

- Advanced analytics
- Sustainable supply chain
- Network optimization
- Artificial intelligence/ machine learning
- Digital supply chain
- Visibility
- Robotics and automation

3PLs are turning to technologies that can capture and analyze accurate, real-time data to improve productivity, enable predictive analytics, broaden visibility and strengthen agility and resilience. It's important to work with a partner that can help you justify the right automation for the right processes, using best-in-class automation and software solutions.

2. https://www.3plstudy.com/ntt3pl/nttds_3pl.home

Automation Right for Any 3PL

The start of any automation process begins with the management of inventory. Real-time inventory and order fulfillment is imperative in any operation, but vital for 3PLs. While investing in a new technology comes with some degree of unease, there are proven automation solutions that 3PLs can leverage to begin moving from a manual to an automated operation.

Warehouse and Inventory Software – Since 1975, when JCPenney created the first software to manage their inventory, many different types of warehouse management software have been introduced to the market: from slotting software to a warehouse control system (WCS), a warehouse management system (WMS) and a warehouse execution system (WES). Many offerings align with the number of orders per day, inventory turns or the ERP it integrates into. Warehouse management software can provide vital business information and real-time data on inventory, productivity, and throughput. Utilizing the right supply chain partner can help analyze and select the right software to streamline operations today and into the future.

Wireless Scanning Devices – Much like software, wireless scanning devices come in a wide variety. Laser barcode scanners, RFID, 2D scanners and wearable mobile devices can all be utilized in receiving and picking activities. Using a data-driven, technology-agnostic approach can allow an operation to select the right technology.

Shipping Software - Another critical piece of software is shipping software, also called transportation management system (TMS), which allows an operation to rate shop for the best cost shipping options among carriers that still meet customers' delivery expectations.

Picking Technologies - Picking continues to be the most labor-intensive part of a distribution center operation. Utilizing pick-to-light or pick-to-voice technologies can significantly impact productivity and accuracy.

Building a Business Case for Automation on a Greater Scale

While the need to automate and apply organizational best practices exists in any size operation, there are several factors to consider when moving to a higher degree of automation and complexity.

Culture and staff adoption, integration plans and capital and operational costs must be weighed when creating a business case for an organization's leadership to consider before investing.

Delivering a clear business case that can answer questions on costs and ROI, as well as expected performance and long-term savings, is essential. Below are some components to building a solid business case for automation.

- Analyze and select the best-case scenario
- List the business risks and mitigation plans
- Determine projected capital investment
- Define projected operating costs
- Establish projected performance and cost improvements
- Capacity and productivity impacts
- Create implementation plan and timeline

Creating and presenting a business case for automation can be daunting as you work through its many components and agendas. Partnering with a supply chain expert like FORTNA, who has guided many organizations through the automation business case process, can help you collect and analyze your operational data and find the best-fit automation and processes for today and in the future.

The Goods-to-Person Solution for 3PLs

With the unique needs of a 3PL and the changing supply chain landscape, a goods-to-person (GTP) system is a good fit for expanding operations with a new greenfield site or revitalizing an existing brownfield site. High-density storage, paired with a GTP station, can be an attractive automated solution as it is scalable, eliminates laborious picking operations and creates operational efficiencies in productivity, accuracy, capacity and throughput.

A GTP solution consists of three main pieces of automation:

- Automated storage/retrieval system (AS/RS)
- A picking or goods-to-person workstation
- Conveyor or autonomous mobile robot (AMR) system

GTP Automated Process

1. Order received through warehouse management system software.
2. Order assigned to a picking station.
3. Product totes for order automatically brought to the picking station (AS/RS) by robots or shuttles.
4. Picker picks, scans and places product in order tote.
5. Product tote automatically sent back into AS/RS to be stored.
6. When order is complete, the picker places the order tote on a conveyor or AMR.
7. Order travels to pack and ship station.

While automating most processes within the four walls of the warehouse will improve productivity and throughput, a GTP solution can magnify the benefits for a 3PL. As SLAs become more inflexible and filled with performance penalties for not meeting expected levels and delivery times, a GTP system allows an operator to scale up for peak by offering more SKUs significantly increasing order fulfillment time while controlling inventory with less dependence on temporary or seasonal labor.

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FORTNA CAN HELP

The team of industry experts at FORTNA can help create a winning automation strategy and design for your 3PL operations. Need to build an automation business case? FORTNA can take your unique business needs, growth plans and challenges and apply data-driven solutions that improve performance today while ensuring flexibility for the future.

Contact us today at **www.FORTNA.com**