

Thought Leadership Series

Building the Plan for Warehouse Automation



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Supply chain disruptions, rising labor costs and increased consumer demands for speed and accuracy are all challenges for the distribution industry, underscored by balancing brick-and-mortar sales and growing e-Commerce.

An estimated 2.86 billion people shop online globally, which means 33% of the world's population is shopping online.¹ As e-Commerce continues to grow and expand, organizations will lean heavily on their distribution operations to feed their physical locations and fulfill online orders. Designing a greenfield or converting a brownfield site into a true omnichannel operation can be key to sustaining growth in sales and volume while addressing outside challenges like labor costs, SKU proliferation, returns and capacity.

This FORTNA Insight will discuss building a realistic and actionable warehouse automation plan to ensure your operations are ready for today's challenges and tomorrow's growth.

¹ <https://www.sellerscommerce.com/blog/ecommerce-statistics/>

What is an automation plan?

An automation plan is a detailed justification for implementing automation within the warehouse. Normally presented to an executive group or board of directors, it outlines the benefits of automating either part or the entire distribution operation. Objectives, scope, business requirements, and benefit, cost, and risk analysis can all be part of a successful business case. Return on investment (ROI) timelines and implementation plans are also key parts of the plan.

Identifying pain points and setting the business requirements

As in most industries, increased customer satisfaction and loyalty are the top goals for distribution operations. Automation, particularly in the warehouse, is vital in meeting customer expectations regarding order accuracy, on-time delivery and a seamless returns process. This leads to an enjoyable customer experience and builds confidence in the brand.

It is critical to build an automation plan that is flexible and scalable to respond to internal and external challenges while future-proofing your operations. This approach ensures that your operations are adaptable to current challenges, forward-thinking and ready to respond to future needs, securing the organization's long-term viability.



The first step of any automation plan is to set the business requirements: the challenges or necessities that automation must solve or produce once the integration is complete and the new system is live. Requirements can vary depending on current and future needs, cost controls and customer expectations. Common requirements include:



1. Labor costs and turnover

The first business requirement for automation is typically to lessen an operation's dependence on labor. Competition for skilled workers continues to heighten as labor availability shrinks, causing a major gap. New processes and operational designs integrated with automated technologies increase productivity and throughput while reducing labor costs.

2. Inventory management and visibility

A distribution organization's SKU counts can range from thousands to millions. Having real-time visibility into inventory velocity and turns, potential stockouts and returns will allow operations to meet customer expectations and intervene and react to market fluctuations and seasonality.

3. Brownfield vs. Greenfield

An important decision to make while building your automation plan is whether your current facility and operation can meet your future needs. With current interest rates and real estate costs, organizations are transforming their facilities with warehouse-ready solutions located in small, medium and large footprints to decrease labor costs and dramatically increase capacity and productivity.

4. Scalability and flexibility

Disruption, geopolitical unrest and natural disasters affect the supply chain. Operations built with flexibility and scalability are best prepared to react to these market fluctuations and promotional and seasonal opportunities.

5. Return on investment

Understanding the financial metrics and terms by which an automation project will be judged is key to setting the right business requirements. These metrics are normally set by the sponsoring executive or a board of directors.

6. Data utilization

Leveraging an operation's data to gain insights into operational performance, sales trends and customer behavior is critical in any automation project. It should be a key business requirement to understand the software and IT infrastructure needed to deliver the tools, dashboards and real-time data.

The above requirements are a good starting point for building your automation plan. Your operation will have very specific needs that automation will address. Cost reductions, throughput, safety, space utilization and sustainability are other factors to consider. Working with a supply chain partner like FORTNA, which has experience and expertise in partnering with organizations to build an automation plan, can make this process easier and result in a positive output.

Addressing changing customer expectations

Over the past decade, customer expectations regarding the variety of items offered and the method and speed of delivery have greatly transformed. The next ten years will be no different as customer demands morph and organizations must be flexible in their operations to respond to these needs, ensuring the organization's ability to adapt to changing customer needs.

Customer behavior, technological advancements and generational shifts will lead to some key expectations across the distribution landscape:

1. Personalization

As can be seen in today's market, personalization is growing. Tailored experiences based on behaviors and past interactions using data analytics and artificial intelligence (AI) will become more commonplace. This trend leads to higher levels of SKU proliferation and the need for solutions like high-density storage and goods-to-person fulfillment.

2. Fast and flexible delivery

Next-day delivery is often the expectation, and in some cases, it may get even faster. Customers now search for multiple delivery options, such as same-day or instant deliveries. This trend requires operations to be efficient and productive, taking advantage of solutions like slotting, warehouse management software and last-mile delivery.



Guidelines for building an automation plan for distribution operations

3. Omnichannel integration

Users expect the same experience across digital platforms and in-store. Therefore, a tighter omnichannel distribution model with warehouse automation to support it is needed. Micro-fulfillment centers and warehouse execution software can orchestrate actions and operations across the distribution network.

4. Customer-friendly returns policy

Just as customer expectations are high regarding delivery timelines, the same is true for return policies and procedures. Some organizations will see 15% to 20% return rates, which are even higher during peak season. A straightforward returns policy is only the beginning; having a dedicated and proven returns operation with automation to support it can satisfy customer demands and lead to faster restocks and more sales.

5. Sustainability

As Millennials and Gen Zers become more of a buying force, organizations must align with their core beliefs. Sustainability and environmentally friendly practices have been and will continue to be part of purchasing decisions. This is paired with regulations and reporting on environmental, social and governance (ESG) that are going into effect.

Culture and staff adoption, integration plans and capital and operational costs are just a few factors to consider. It is essential to deliver a clear and data-backed case that can answer questions on costs and ROI, expected performance and long-term savings. Below are some guidelines for building a solid automation plan.

1. Analyze and measure multiple scenarios

There should be multiple options to consider. Measure the merits of each, including the option and results for doing nothing.

2. List the business risks and mitigation plans

A good automation plan will list the business risks and how to address them if they occur. Unexpected obstacles and roadblocks are expected, and working with a supply chain partner like FORTNA, which has been through the process with many organizations, can help minimize these risks.

3. Determine projected capital investment

Identify the bottom line for each scenario's investment and how it will be disbursed.

4. Define projected operating costs

The new automation system will have drastically new needs for maintenance, spare parts and skill level requirements. Understanding these needs will allow for better planning and budgetary considerations.

5. Establish expected performance and cost improvements

Before building a business plan for automation, benchmark and understand the system's key KPIs pre-automation to measure improvements and cost savings effectively.

6. Creation of an implementation plan and timeline

An overall timeline of the automation integration, including key goalposts, testing and go-live date.



FORTNA

FORTNA CAN HELP

Building a strong, data-backed automation plan can be complex and involve many moving parts. Partnering with FORTNA, which has a successful history with various distribution organizations and industries and has assisted in building automation plans for small, medium and large operations, can guide you through the planning and integration process and future-proof your business.

Contact us today at www.FORTNA.com