WHITE PAPER

Don’t Let the Cost of Doing Nothing Fool You

Why Investing to Automate or Modernize Your DC Usually Is the Better Deal

Modernizing a distribution center requires significant investment, so businesses often choose to postpone or avoid expansion of warehouse capabilities and functionality. What's surprising, however, is how business leaders can overlook the steps necessary to truly understand the costs of doing nothing.

The benefit of this analysis couldn't be clearer because the cost of inaction can easily exceed the price of a modernization project.

Businesses routinely choose to not invest in distribution without giving careful consideration to the impact on operational costs and missed business opportunities. They thoroughly evaluate whether to purchase material handling equipment, warehouse software and distribution buildings. The same scrutiny should be applied to real and often hidden expenses and the opportunity costs of the option to do nothing. This approach needs to be included in decisions that lead to a business case for automation or other improvements that expand the warehouse operation.

Where You'll Find the Costs

Businesses at all stages of growth struggle with the costs involved with updating a warehouse to make distribution more productive or better able to handle multi-channel order fulfillment. That's especially true for businesses that fall into these three categories:

- The business is in a static, slow-growth or no-growth industry. Executives of these companies commonly believe there can be little or no cost to doing nothing in this case; yet costs still abound if the current state of their distribution operation is inefficient.

- The company is rapidly growing. If a business does not want to invest in distribution infrastructure, distribution center (DC) managers have to make smaller pick locations or faces, or convert reserve locations to pick faces, often in areas or levels that are inefficient to access, i.e., upper levels that require slow, cumbersome equipment to accommodate growth of SKUs. They replenish more frequently and every replenishment move has a real cost. They handle goods multiple times for each item sold.

- The industry is growing. To capitalize on the growth, the business wants to invest in material handling equipment and warehouse automation to increase capacity. Making the case for investment in distribution can be challenging, especially to meet demands for multi-channel fulfillment. Most companies typically invest in the front end of their business before the back end. Product development, marketing and manufacturing receive most of the money available for capital investment. Logistics is handed what's left over because it's often viewed purely as an expense.

In each of these scenarios, there are three approaches for businesses to thoroughly evaluate before deciding whether or how to modernize distribution operations. It's wise to weigh the costs and benefits of automation against the likely results of doing nothing, in order to select the best option for your business. Here's what you should consider:

Approach 1 — Do Nothing, but End Up Spending More

This is the true do-nothing scenario. No facility expansion, additional material handling equipment or warehouse software is purchased. The business' leaders tell their warehouse managers to make do with what they have.

Executives do not always see the cost of doing nothing. Among them are incremental operational costs, which can rise when doing nothing, due to these reasons:

- More pick faces and pack stations are needed as SKUs increase.
- Additional reserve inventory must be stored.
- Though extra storage racks are needed, they are not purchased. Due to insufficient storage racks and space, some DC managers need to place product in aisles, rent trailers to keep product in the yard or off-site locations, or block part of the docks with product.
- Additional labor must be hired, and each additional person becomes less productive due to traffic congestion in the existing DC.
- The lack of sufficient dock and aisle space results in excess and costly product damage.
- Worker safety is diminished due to reduced visibility to lift-truck traffic.

Other expenses can include lost revenue from missed delivery dates or inaccurate orders, escalating costs caused by incorrect or damaged orders. Eventually, the do-nothing approach culminates with lost customers because of consistent failure to deliver with quality.

Approach 2 — No Automation, but Increase Space and Hire More Workers

Growing businesses that choose to not invest in automation end up adding labor and space, through expansion or relocating to a larger facility in an attempt to handle growth in SKUs, throughput and multi-channel requirements. This situation occurs when incremental operational costs typically are viewed as less expensive than capital investments in material handling equipment beyond the facility expansion costs.

The problem with this approach is that if the business doesn't invest to update and expand distribution center capabilities, productivity usually decreases because of the following factors:

- Every time SKUs are added, new pick faces are needed, which expands the size of the pick zone.
- Employees must travel farther to retrieve items.
- More people are needed to make up for the additional pick time required as SKUs increase.

Without automation, a larger reserve storage area is needed. The size of its footprint involves incremental investment in lift trucks to support the additional travel requirements and loss in driver productivity.

Without automation, incremental labor often is added in an attempt to keep up with growth. Adding labor into an existing warehouse, however, rarely is the best solution. Extra workers increase congestion and delays as workers and forklifts wait for each other. Overall pick times are slowed as a result. And, as most DC operators have experienced, adding workforce typically results in higher training costs and increased turnover as newly hired employees turn over more frequently than longer-term associates.

Approach 3 — Add Automation, Save Long Term

Some businesses in growing industries do choose to meet the demands of SKU proliferation and multi-channel fulfillment by improving their distribution process through automation. That tactic requires a significant level of investment and raises a question almost as big as the investment: When is spending on automation justified?

There are three key answers:

1. When businesses scale a warehouse to a certain point, they find they miss orders; or the quality degrades to the point that the whole process of ensuring orders are correct and shipped on time becomes increasingly challenging.

2. When adding labor no longer works, in order to increase the number of SKUs, businesses try to pick more items in a smaller footprint. More workers lead to congestion that slows workflow.

3. When business requirements change, the cost of doing nothing risks existing business or increases the risk of escalating penalties for service level agreement (SLA) noncompliance.

8 Critical Challenges

Here are typical situations in a distribution center for which the cost of doing nothing may be more expensive than the cost of investments to remedy them:

Challenges	Business Impact
Insufficient storage spacew	Additional labor costs and inefficiencies result when storage occupancy is above 85 percent. Safety concerns rise as congestion increases and multiple types of material handling equipment operate in the same areas.
Rapid growth of orders	Infrastructure cannot accommodate adequate storage and order processing to fulfill additional demand.
Increase in the number and size of SKUs	Number of pick faces along pick lines could rapidly become inadequate. Larger parcel sizes and/or additional parcel packages per order could result.
Lack of automatic data capture and location tracking	With employees performing data entry, there's a greater chance of manual errors. Delays occur in realizing and addressing discrepancies (putaway, replenishment, picking) in real time. Inefficient material handling (putaway, replenishment) is caused due to lack of system-driven work tasks.
Inability to confirm picks	Double handling is required of all products at manifest station to confirm orders.
Insufficient number of dock doors and dock areas	Congestion and excessive material handling labor result due to extra travel to/from dock doors. Too few doors and dock areas cause delays for carriers and result in detention fees.
Storage aisles used for other functions	Storage capacity is reduced because the storage locations cannot be accessed.
Significant portion of the DC dedicated to floor-level functional areas	Cubic volume of the DC building is underused; packing and other functions can be relocated to work platforms or mezzanine structures.

You Should Always Ask These Questions About the Cost of Doing Nothing

Obsolete warehouse hardware and software cannot keep up with increasingly complex fulfillment requirements, especially for multi-channel retailers. Before these systems fail, businesses should evaluate the cost of doing nothing, along with options to modernize and automate distribution operations.

Think of this as a guide to determine the true cost of doing nothing in comparison to options for investment in the distribution center.

1 Do we have capacity to meet growth expectations?

- Will we lose or maintain market share?
- Are our distribution costs competitive?
- How will they change, and to what extent if we do nothing?
- Will our service decline if we don't invest?

2 What are the benefits of warehouse investment?

- Will we grow existing revenue sources?
- Will we gain new revenue?
- Will we increase use of underutilized or underperforming assets or resources?
- Are we considering the cost of staying in business as the competitive climate changes?

Case Study: What It Costs to Modernize a DC for Growth

Challenge: A FORTE customer faced SKU growth of 25 percent and demand growth of 50 percent for two of its top product lines, and had outgrown its distribution center. The retailer's operations management team was concerned that they would soon start failing their customers. To keep up with existing and projected orders, more workers would be needed, costing more than $900,000 in the first year and escalating to nearly $3 million in five years.

Solution: Compare the projected growth and its impact on distribution center operations if no changes are made. At a minimum, FORTE recommended the retailer invest about $3 million for additional pallet rack, carton flow rack and pack stations. The complete recommended solution called for spending approximately $5 million for new material handing equipment and software to manage projected orders for the next five years and beyond.

Results: The retailer chose to follow FORTE's recommendations for a complete solution. This approach enabled the company to delay or avoid million-dollar-plus investments in a traditional, full-featured warehouse management system (WMS) while significantly increasing capacity to handle expected growth in the next three years and beyond.

The investment in hardware and software enhanced the retailer's ability to realize these benefits:

- Substantially improve picking productivity and increase picking capacity.
- Streamline the order fulfillment process by reducing process steps in the packing function.
- Provide dedicated pick lines for key accounts.
- Track inventory by location in the warehouse.
- Confirm picks and eliminate duplicate picks.
- Replenish based on predetermined minimum and maximum levels to reduce short picks and manage waves to sort orders by customer and carrier.
- Allocate pick zones dynamically.
- Report labor productivity.

DC Costs Saved

The retailer purchased the FORTE Smart Warehouse Suite™, agent-based warehouse execution software, to fill gaps in its enterprise resource planning (ERP) software system and avoid the costly and intrusive investment in a best-of-breed warehouse management system (WMS), saving $1.1 million.

Projected labor costs saved after five years as a result of the new automation:

$1.5 million = 17% reduction

Thoroughly Consider All Costs of Doing Nothing

The payback from investing to modernize a distribution center with automation isn't all that long in business terms — usually two to three years. Many business leaders believe, however, that the return on capital investment can take much longer, so they often delay or reject funding to improve distribution operations.

They also believe there is substantial risk to automation, so they're much more comfortable with incremental operating cost increases and they ignore the risks associated with doing nothing. They rationalize that increasing labor spend or adding pick faces in an attempt to keep up with the growth in SKUs and multi-channel fulfillment demands costs less than the investment needed for automation. On the contrary, only automation can improve productivity, pick accuracy and the fulfillment times needed to support today's multi-channel distribution.

Still, many companies avoid the investment necessary to achieve these outcomes. What's the benefit of doing nothing to expand distribution capabilities?

A company can save on capital investment today, of course; but it's critical to understand what it is likely to eventually cost the company in other expenses and missed business opportunities. Many companies are willing to increase operational costs to avoid capital investments — generally out of an erroneous belief that companies that invest in material handling equipment and software gain little increase in productivity and suffer significant disruptions to operations.

Constraints on capital are real, especially at growing companies because they're buying inventory at increasing rates. They have to choose between investing in the infrastructure for manufacturing and/or the infrastructure for marketing and sales before they would ever invest in the infrastructure for distribution. The size of distribution investment also should be evaluated. Many times a relatively small investment can be made in software that improves productivity without disrupting warehouse operations.

> These decisions are fully informed only when the cost of doing nothing in the warehouse is weighed against the cost to automate and modernize.

Case Study: Agents to the Rescue to Improve Returns to Housewares DC

Challenge: A slow-growing distributor of collectible figurines didn't have software functionality to handle returns in its warehouse. The return process was inefficient, adding a lot of time and manpower. That's an argument for considering warehouse execution system (WES) software.

Solution: FORTE's solution: one module of FORTE Warehouse Director™ to handle returns processing. It's literally an out-of-the-box solution that can be deployed without complex integration with existing software. That means the implementation is low cost and can be carried out with little risk of disruption to business activities.

You Need an Expert Partner

Distribution center managers and their companies can rely on a trusted partner to assist with a thorough review of warehouse management and automation systems and offer expert advice about ways to improve fulfillment operations. Inside the four walls of a distribution center, FORTE, a Swisslog company, can help DC managers optimize the flow of products as well as monitor and control the locations of cartons and equipment.

Why FORTE

Single-Source Accountability

Whether we're helping you develop a strategic plan, design and build a distribution facility, or optimize a distribution operation through performance metrics and analytics, FORTE provides a true single point of accountability responsible for the complete performance of your distribution network. No finger pointing. No fragmentation of responsibility. No multiple suppliers for technical support. You have performance goals, and it's our job to make sure they're met on an ongoing basis.

Total Objectivity

We don't manufacture equipment. We don't develop warehouse management software. We don't have commercial arrangements with any suppliers for expected volumes of business. We're simply interested in delivering the most efficient distribution solutions at the lowest total cost. Our client-side service approach means our only allegiance is to our customers. So with every engagement, you know we'll choose the most appropriate level and blend of technologies integrated into an effective operational system.

Expertise

Our team is deeply rooted in the hands-on implementation of distribution center design and warehouse automation. FORTE's engineers and technicians integrate today's best practices in supply chain management and distribution center operations while developing next-generation technologies. As a result, our solutions employ the best combination of practical advice, data-driven analysis and technology-enabled systems. With FORTE, you get:

- ***More accountability than a consultant***
- ***More experience than a systems integrator***
- ***More objectivity than a manufacturer***