SWISSLOG

Understanding the impact on your DC

The hidden cost of doing nothing

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Executive Summary

Market forces are raising the cost of inaction in the supply chain. Labor shortages, SKU proliferation, and changing customer requirements all put stress on distribution center (DC) resources and make it harder to manage costs and support growth.

Modernizing and automating the DC introduces efficiencies that enable organizations to increase productivity, respond faster to orders, and maximize utilization of the DC space. However, securing the capital required to support these initiatives is a hurdle some organizations struggle to overcome. Companies in high-growth industries must navigate competing priorities while those in slow-growth industries may be reluctant to make the investments required.

But the pandemic highlighted the strategic value of the supply chain—and the impact on every aspect of an organization when it fails to perform as expected. As organizations evaluate the costs of DC modernization, they should weigh the investment against the cost of doing nothing.

Those costs may include:

- Losing market share to competitors who are investing in automation to meet customer requirements.
- Being unable to attract labor to support demand peaks or growth, compromising growth potential.
- Inability to efficiently support market changes, such as the shift to multichannel fulfillment.
- Higher supply chain costs that reduce competitiveness
- Opening new DCs to enable inventory expansion.
- Higher return rates resulting from inaccurate order fulfillment.
- Higher labor costs

A business that isn't growing is essentially shrinking because new competitors are always entering the market and existing competitors are likely implementing their own growth strategies. DC automation is no longer a nice-to-have. It has become a necessity in today's environment and there are significant risks to inaction that should be considered when evaluating the cost of these initiatives. Plus, various types of leases are available today that reduce or eliminate the capital costs related to automation.

Introduction

Companies carefully evaluate the costs associated with modernizing or optimizing an existing distribution center or building a new one. Yet they seldom scrutinize the real cost of the alternative – doing nothing.

Choosing to maintain the status quo is always an alternative to significant capital investment; however, the real expenses and the opportunity costs of doing nothing often are overlooked. Such costs need to be included in the business case for all proposed improvements to your distribution operation. The reason? The cost of inaction can easily exceed the price of a modernization project.

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Where You'll Find The Costs

Businesses at all stages of growth can face challenges in overcoming the hurdles 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. In most cases, inventory growth to support higher demand is amplified by a growth in the number of SKUs. If a business does not want to invest in distribution infrastructure, 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, such as upper levels that require slow, cumbersome equipment to access inventory. They replenish more frequently, and every replenishment move has a real cost. They handle goods multiple times for each item sold. At some point, it may be necessary to lease supplemental warehouse space.

- The industry is growing. To capitalize on the growth, the business wants to invest in material handling equipment and warehouse automation to increase capacity and meet demands for multi-channel fulfillment. However, these investments must compete with other business priorities. 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.

Following are three scenarios you should consider as you think about the right approach for your business.

Approach 1 – Do Nothing, But End Up Spending More

This is the true, do-nothing scenario. No additional warehouse automation or software is purchased to update the distribution center. Business leaders tell their warehouse managers to make do with what they have, believing they are avoiding new expenses and capital investments.

While avoiding or delaying investment in operational improvements may seem like a prudent course of action, or more properly inaction, it may quickly result in increased costs to the business. Even for companies that are static or slow growers, they still must meet customers' demands and match or outperform competitors. Doing so introduces the possibility of these incremental operational costs:

- Pick faces are condensed to make room for new SKUs; coupled with increased demand for existing SKUs, replenishment activity and labor increase.

- Picking is more frequently interrupted due to insufficient stock in the pick face.

- Order fulfillment costs are higher than that of competitors that have automated. Cost per order can drop approximately 30% with automation.

- Reserve inventory no longer fits in the pallet racks, so it is stored on docks, in aisles, in trailers and in outside storage; accessing the inventory becomes more challenging and labor intensive.

- There are insufficient pack stations, and the packing function becomes a major constraint.

When doing nothing, other unanticipated costs can arise from lost revenue from missed delivery dates or inaccurate or damaged orders, especially as employee turnover rates remain high in manual warehouses. In more extreme cases, the distribution center fails to meet customer service level agreements or expectations, and customers are lost forever. Finally, delaying automation is likely to increase the cost when the decision to automate can no longer be delayed.

Approach 2 – Don't Invest In Automation But Hire More Workers

Incremental operational costs are typically viewed as more manageable than capital investments. Unfortunately, businesses that choose to not invest in warehouse modernization, but purchase more of the same non-automated equipment, end up adding labor in an attempt to handle growth, proliferation of SKUs and new multichannel requirements. The cost of incrementally purchasing additional equipment, just to try to maintain current productivity levels, is often ignored. As a result, this tactic could lead to the following scenarios:

- Pick faces and an expanded pick zone are needed as SKUs increase.
- Racks must be purchased to store increasing inventory.
- Pack stations are required.

The problem with this approach is that if your business doesn't invest to update and expand distribution center capabilities, overall productivity usually decreases. Every time new SKUs are added, new pick locations are needed; and the size of the overall pick zone expands, which means employees must travel farther to retrieve items. More people are needed to make up for the additional pick time required as SKUs increase. And those people may not be available in a tight labor market.

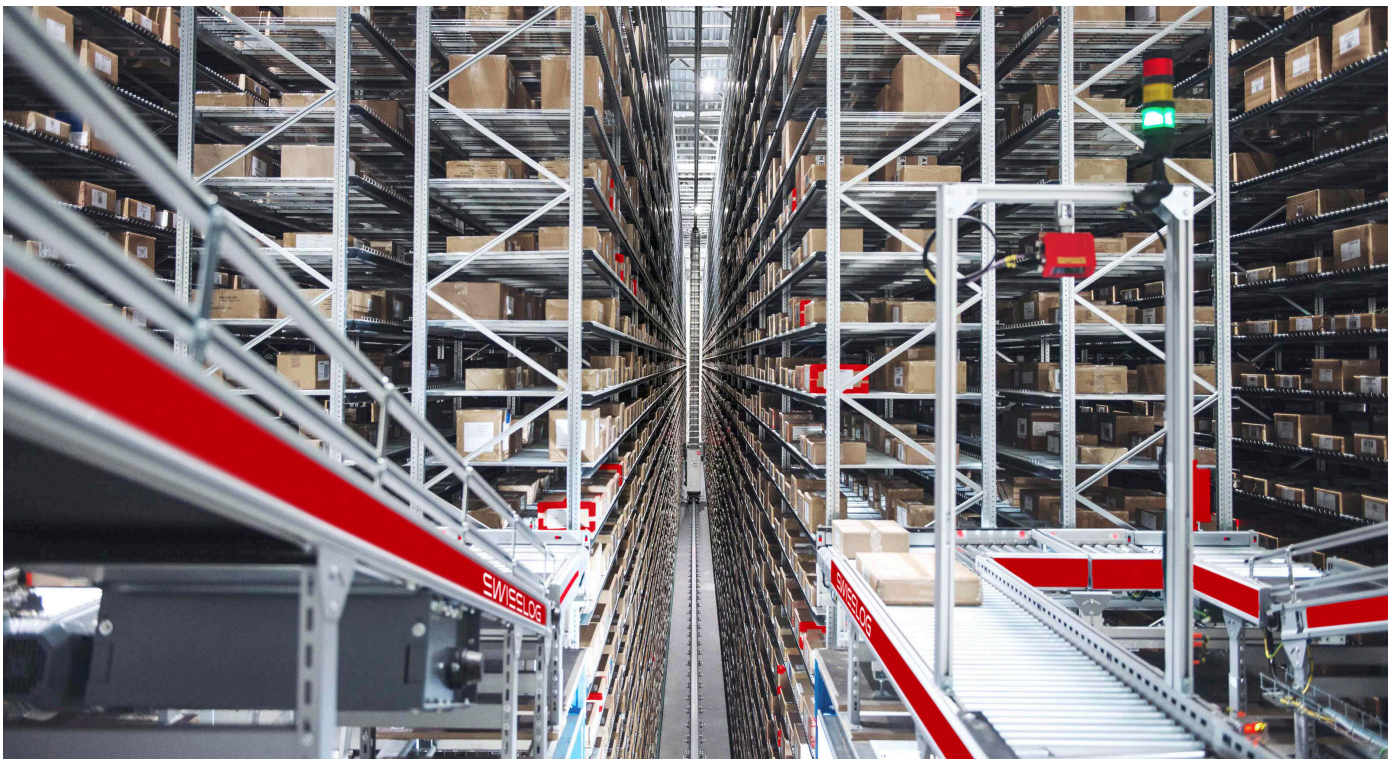
Even if you could hire the necessary people, adding labor costs into an existing warehouse rarely is the best solution. More pickers increase congestion and delays as workers and forklifts wait for each other. Pick times are slowed as a result.

Approach 3 – Add Automation And Save Long Term

Businesses in growing industries frequently choose to meet demands for more SKUs and multi-channel fulfillment by improving their distribution process through automation. That's a significant new level of investment in material handling equipment and warehouse software.

When is the investment in automation justified? When businesses scale a warehouse to a certain point without automating, they face new challenges:

- They miss orders, or quality degrades to the point that the whole process of getting orders right and shipped on time becomes increasingly challenging.
- Businesses try to pick more items in a smaller footprint.
- They add more workers, leading to congestion in the pick zone or other areas that slows workflow.
- Businesses must adjust to changing customer requirements, and the cost of doing nothing risks existing business or escalates penalties for noncompliance.



10 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 space	Additional labor costs and inefficiencies result when storage occupancy is above 85%. 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.
Order profiles or customer expectations change	Higher labor costs associated with fulfilling smaller orders. Customer dissatisfaction/abandonment if expected delivery requirements cannot be met.
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.
Inability to attract the labor to meet service requirements	High recruiting costs Inconsistent quality and service
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.

Having Capacity to Meet Growth Expectations

- Can we meet customer requirements for speed and accuracy?
- What are the costs associated with responding to demand peaks?
- 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?

Considering The Benefits Of Warehouse Automation

- Will we grow existing revenue sources?
- Will we reduce our cost per order?
- Will we create opportunities to participate in new markets?
- Will we gain new revenue?
- Will we reduce our labor costs?
- Will we increase use of underutilized or underperforming assets or resources?
- Will we delay or eliminate the need for new warehouse space?
- 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 Swisslog 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, Swisslog 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 handling equipment and software to manage projected orders for the next five years and beyond.

Results: The retailer chose to follow Swisslog'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 Swisslog's warehouse execution software to fill gaps in its enterprise resource planning (ERP) software system and avoid 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

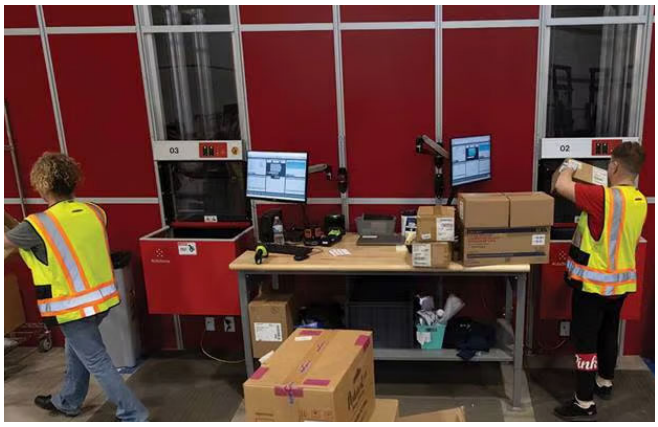
What's the benefit of doing nothing instead of investing to expand distribution capabilities? A company can save on capital costs today, of course, but it's critical to understand what doing nothing is likely to eventually cost your company in other expenses plus missed business opportunities.

Nevertheless, 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. Investment in distribution modernization also competes for funding with building construction and rental and operational expenses.

One way to manage these competing priorities is to automate without direct capital costs. Financing can be considered through capital, operating and usage leases that protect capital for other priorities.

Given all of these challenges, decisions about investing in distribution are fully informed only when the cost of doing nothing in the warehouse is weighed against the cost to automate and modernize. Doing nothing brings with it significant hidden costs. You want to make sure you identify them and include them in every business case.

Swisslog has a methodology for developing a business case for automation that includes accurate projections on improvements in productivity, order cycle times and storage density as well as an analysis of the hidden costs of inaction. Our experts are always available to help walk you through the process and evaluate all of your options.



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Case Study: Distributor Enhances Support For Growing Market With Automated DC

Challenge: This leading healthcare distributor was experiencing rapid growth in its at-home solutions business. Existing distribution centers were nearing capacity and relied on manual processes that limited the company's ability to meet aggressive SLAs while managing costs and quality.

Solution: Working with Swisslog, the company implemented a high-density goods-to-person automation solution as the centerpiece of a new automated distribution center to serve the growing market.

Results: The goods-to-person solution has allowed the company to improve productivity, reduce order cycle times, and maximize utilization of the space to support future growth. According to the company's director of operations: "This is a game-changer for us, one that is going to improve our quality and get product from the shelves to patients faster than conventional operations."

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