Sage Inventory Advisor

Inventory optimization and the informed business

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"As your SKU numbers increase, your inventory challenges increase."

What is inventory optimization?

In a simple sense, inventory optimization is what you get when you strike the perfect balance between having enough inventory to satisfy your customer service standards while stocking as little inventory as possible. Customer service standards involve meeting demand—but not past the point that you have too much.

But inventory optimization gets complicated when supply and demand are constantly in a state of flux across a sizeable number of SKUs. The larger the complexity, the bigger the challenge.

Why does inventory optimization matter?

The answer is based on the ultimate goal of every business: maximized profitability. For many businesses, inventory is often the single largest asset on the balance sheet. When there is a significant amount of working capital at stake, even the smallest percentage improvement can translate into significant savings.

Truly informed businesses recognize that they will not maximize profitability if they do not meet customer demands due to key items stocking out, while other items gather dust.

Experienced executives know how to ferret out where their biggest business issues are and then determine how to make improvements.

Finally, truly informed businesses can envision that there can be a better way, somehow. They listen to others, track industry trends, keeping their sights on their best areas to improve the bottom line. Because their inventory uses so much of their working capital and impacts both revenue and profitability, they actively seek and look for any new developments around best practices and technology for inventory optimization.

This e-book is designed to help you make informed decisions about optimizing your inventory. Happy reading!

What happens in the absence of inventory optimization?

Basically, mismatches of demand for your inventory and the quantities of that inventory you stock.

One mismatch—not having enough stock—results in stock-outs. Orders come in, you don't have the items the customer wants, and then a scramble ensues to expedite higher-priced replenishment, or, possibly even worse, you lose the sales to a competitor who has the desired stock on hand. Stock-outs carry opportunity costs: the opportunity to sell at the best price and the opportunity to sell at all.

The other mismatch—having too much stock (overage)—results in a misallocation of working capital. In other words, money has been spent on items where the demand lags or is nonexistent. Stock overages carry costs because the inventory you stock has to be warehoused, insured, secured against shrinkage, depreciated, and taxed as an asset. Overage items generally cost the business an additional 25% to 50% per year. Stock overages carry opportunity costs as well: the working capital tied up in unsold inventory is unavailable for other purposes.

Stock-outs, stock overages—why do they happen?

No one wants to order too little or too much stock. Even the most talented purchasers with a strong, dedicated work ethic cannot help but miss the mark when other factors get in the way such as:

- Misaligned priorities
- Lack of visibility into fluctuating patterns
- Time-consuming forecasting tools
- Unnecessary manual processes

Misaligned priorities

When it's time to buy stock, every part of a company has maximized profitability in mind. The problem is, they don't all agree on how to achieve it with respect to inventory.

Some see reasons to maximize inventory

The sales team knows that it's easier to sell when there is enough available inventory to meet customer demand, which in turn keeps customers happy and buying again.

Purchasing managers focus on securing better terms through buying in larger volumes or offseason.

Production employees look to achieve economies of scale by running large batch sizes, minimizing downtime. They prefer to stock ample quantities of inventory.

Some see reasons to minimize inventory

Finance and the executives keep an ever-watchful eye on working capital and the bottom line. Wasting resources on unsold inventory drives them to look for a means to stock minimally.

Product developers, working in some businesses, focus on upcoming rollouts of newer offerings, so they advise that soon-to-be-replaced SKUs should be stocked at a minimum.

Without one consolidated view and organizational buy-in to how each purchasing decision is made and tracked, it's easy to see where the cross-purposes of each functional group can result in disappointment and blame.

"New affordable inventory optimization solutions are changing the landscape dramatically, leveling the playing field for all businesses."

Lack of visibility into fluctuating patterns

The apparent unpredictability of supply and demand presents an even bigger challenge. There are patterns, but most businesses struggle to uncover them.

Let's start with supply. Some vendors always deliver high-quality goods on time; others deliver goods that get returned frequently and show up late. Some vendors work closely with your company to match replenishment of stock to demand; others don't move at all until you initiate contact. Some of the SKUs you stock may have limited shelf life, while other items may last decades.

The point is, a supply chain is only as good as its weakest link. Things can go smoothly or . . . not so much. Of course, the more reliable your sources are, the higher your level of confidence in predicting availability, pricing, and lead times gets.

Demand is even harder to predict. Your competitors are always trying to outsmart you with innovations and lower prices—you're always figuring out ways to beat them. Some SKUs sell only seasonally, like snow shovels. Some big-ticket items, such as a yacht, only sell one at a time. Others, such as golf balls, can ship out by the truckload in turn after turn. And ask anyone in the clothing business: fashions change in the blink of an eye. Worst of all, macro-level economic conditions can place the business on a roller coaster ride.

Time-consuming forecasting tools

Vendor unpredictability or market fluctuation isn't to say that supply and demand trend lines can't be determined. With these frustrating variables adding to the complexity, it just means that there's even more importance to paying attention to how you forecast.

The problem is, SKU-by-SKU forecasting has traditionally taken a lot of man-hours. Until recently, it's been a manual process of exporting supply chain and sales history data from an ERP system onto spreadsheets for analysis. Manual processes aren't just time intensive, they're prone to error. And they take a lot of time to produce one semi-accurate forecast, so it isn't hard to see the huge challenge faced by inventory managers trying to predict demand for thousands, or for some, hundreds of thousands of SKUs scattered across your locations.

Neither is it hard to see the end result: Demand forecasting done manually doesn't keep up with trends, is riddled with mistakes, or doesn't happen at all. Stock-outs, overages, missed opportunities, and carrying costs—if you're looking for a big reason why they happen too often, look no further than whether you are using a spreadsheet to do any part of your analysis.

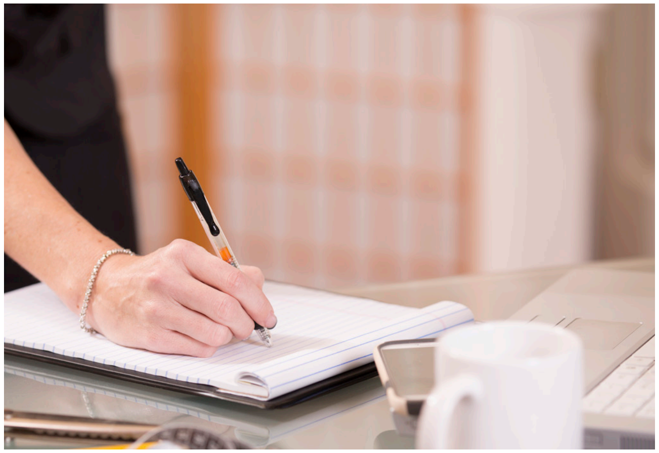
Unnecessary manual processes

How do so many businesses conclude that manual processes are just plain necessary?

Planners or purchasers may argue that they can't do proper analysis because the time to cover a lot of forecasting ground is limited. It takes so long to export data to spreadsheets or other in-house solutions, and plenty of extremely useful data goes unanalyzed.

Executive management may see inventory optimization as a worthy goal, but out of reach. Analyzing inventory performance is seen as overwhelming, the manual data export task requires too much time - and that's even before the manipulation and transformation of data has started. If such analysis can be done at all, it can only be done every once in a while, and that only provides an isolated snapshot of an ever-changing target.

Purchasers and planners, although experienced and competent, can often arrive at the mistaken belief that, since time is of the essence, it's best to just rely on experienced guesses as a stand-in for data-driven forecasting. After all, until recently, there has been no alternative.



It's understood that from these current limited methods to analyze and optimize inventory, mistakes will happen. If mistakes are the expectation, then it only stands to reason that the purchasing should accept firefighting as an everyday part of the job. Expediting expensive emergency orders, arguing with suppliers, shipping back returns—all in a day's work!

Now let's circle back and review two crucial concepts. First, at the beginning of this e-book we said that informed businesses focus intently on maximizing revenue and profits and that inventory optimization is a high priority because it is such a big use of working capital. Inventory is key to meeting customer demand and revenue targets. The kind of business leader you want to be is informed, proactive, and open to ideas on best practices and technologies—and that's precisely why you've immersed yourself in this e-book.

Which brings us to what's been going on recently with inventory software. New affordable inventory optimization solutions are changing the landscape dramatically, leveling the playing field for all businesses. But some misconceptions have remained, and they center around cost, implementation, integration, and learning curves. Many businesses still believe that inventory optimization is for large businesses that have the muscle, internal specialists, and money to implement complex and sophisticated systems. Not anymore.

At the end of this e-book we'll give you some ideas on where the technology tools can change how you run your business. But first, the next section talks about best practices that help improve inventory optimization.

Myth:

"But integrating an inventory optimization tool into my ERP system is a long and costly project. Plus, I'll have resistance because of the big effort involved. Besides, we stock new SKUs all the time, and it won't help with those."

Reality:

"With the right tool like Sage Inventory Advisor, the cost is very affordable, your ramp up can be fast, and ROI can be substantial."

What are some best business practices to improve inventory optimization?

Up to now, we've covered factors that block inventory optimization. Here are the pathways to get to better inventory management:

- Alignment and accountability
- Optimizing your inventory with Sage Inventory Advisor
- Data-based policies and integrity through ERP
- Informed executives bust the myths

Alignment and accountability

Though they share the goal of maximizing profitability, forces within and outside your company oppose one another when it comes to your supply chain. If informed executives hope to take inventory optimization from policy to best practices, they must start by aligning these opposing forces around one set of priorities.

For example, if you have a production department, they are incented to run large batch sizes, minimize downtime, and avoid disruptions of runs in progress because of sudden emergency orders. Sales likes having a guarantee of stock available for servicing customers. Purchasing likes buying in bulk at volume discounts, and vendors like selling you a stream of bulk orders.

Then, at several times of the year, your inventory levels may overwhelm your capacity to store them. Warehouse aisles are blocked by pallets. Goods get damaged and stolen. Warehouse man hours are eaten up by inefficiency. Working capital is tied up for months in unproductive, unsold assets. This intensity at these peak times can cause each functional group to be at loggerheads with each other. Meantime, vendors may often be unaware of how their delayed deliveries cause downstream hardship, and that's not good.

One key first step is recognizing how each group in your organization reacts under such intensity and plan for organizational alignment before it happens. Having all groups work to understand each group's different incentives can be an eye opener. Creating this organizational clarity allows all groups to work together to create the company's service standards and goals that are understood by everyone. It seeks to put in place a combination of better in-house awareness and cooperation, as well as better supplier performance and relationship management programs so that vendors integrate your goals into their processes. Members of the internal and external teams may have to realign some responsibilities, schedules, and accountabilities—and that can be scary—but change will become necessary whenever inventory optimization takes its rightful place as a fundamental objective.

Data-based policies and integrity through ERP

So, as an informed business, you initiate a policy of setting safety stock for the right reasons, and you realign roles to make everyone across the company accountable for playing their part in making it happen. But you can't do anything unless you have accurate inventory data.

ERP data is your foundation. You need to rely first on your ERP data. Your Sage ERP solution gathers lots of it, minute by minute, and it houses the information you need to guide your policies. Here's what your current inventory management system can do: track SKUs when they are received, binned, picked, and shipped. Augmented by bar-coding systems, perhaps radio frequency identification (RFID) systems, real-time recording of transactions, and regular hand counts for verification, your system can track inventory well and alert you when items reach a lower end threshold. That's good for tracking transactions but far from determining the best optimization levels.

What your ERP doesn't do. Specifically, here's what it cannot do: automatically use the historical sales, purchasing, and supply chain data gathering in your ERP system to calculate the safety stock level needed to achieve the balance that stands at the heart of inventory optimization. You obviously want to know how much you should order and when—but with your ERP system, the data that can give you reliable answers to those questions has to be manipulated into meaningful inventory intelligence on cumbersome, time-consuming, error-prone spreadsheets. You need to do it regularly, but with a large number of SKUs, it just doesn't get done.

Your ERP may not catch data issues. You know the old saying "garbage in, garbage out." It applies to ERP inventory data, no matter what your intentions are for best optimization. For example, you may put your price lower than your cost, or you let your on-hand quantities go into negative numbers or leave old purchase orders in the system. Your data may have anomalies that are not caught by any ERP control validation! So you end up with general data integrity issues, which can impact optimization efforts. If you have confusing data, over time you will want to clean it up. But it can be worth it, because the effort will result in better visibility across your inventory numbers.

Optimizing your inventory with Sage Inventory Advisor

Replacing manual systems and processes with automated alternatives that give you optimal order recommendations in an ever-changing environment is the key to taking the first step towards inventory optimization. Sage Inventory Advisor:

Integrates seamlessly with your Sage ERP solution: That's the basis for utilizing all the inventory data you already have, to produce actionable intelligence—inventory intelligence for your ERP.

Analyzes sales, purchasing, and supply chain performance data: Sage Inventory Advisor uses powerful, proprietary algorithms to synthesize disparate numbers into meaningful and valuable information.

Can classify thousands to even millions of SKUs across one or multiple locations: Classifies your data by both value and velocity, applying one of nine color-coded classifications to each SKU. Now every stakeholder is immediately aware of priorities.

Forecasts fast and accurately: Fast and accurate forecasts across a complex number of SKUs, in moments—that's the foundation of optimized inventory!

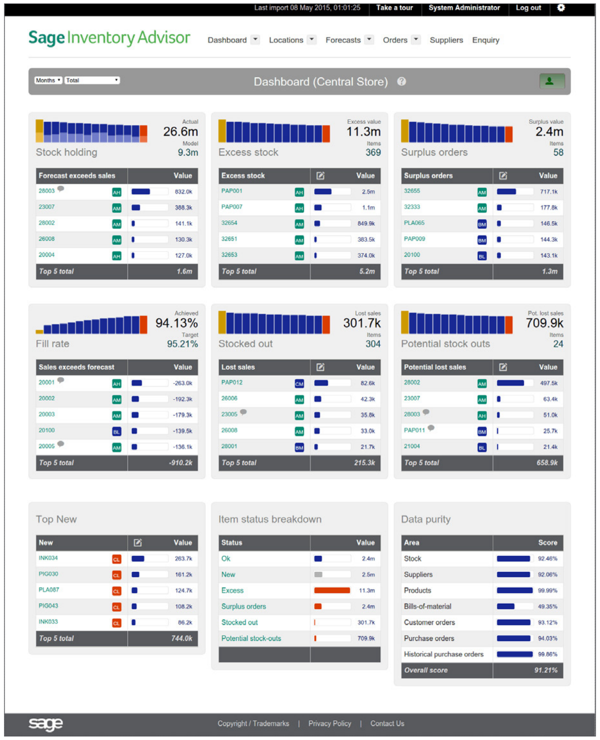
Recommends optimal replenishment based on your inventory policy: Every single order recommendation drives your inventory towards the ideal level based on the inventory policy that you set—minimizing lost sales and maximizing profits.

Detects and identifies potential problems: Exception lists prioritise stock out and excess items for focus and action—plus provide early warning signals for potential stock outs and surplus orders.

Tracks and displays key inventory performance metrics: Dashboards track inventory value and fill rate, with additional KPI geared towards maximizing fill rate whilst minimizing inventory value.

Monitors supplier delivery performance: Every delivery from your suppliers is analysed and any late deliveries or short quantities are immediately factored in to safety stock, and give you the ability to have an intelligent conversation with your suppliers regarding their performance.

Available anytime, anywhere: Sage Inventory Advisor is a cloud-based, inventory optimization solution and an ROI powerhouse. Accessed on any Internet-connected device, it gives you the information immediately, around the clock.



The Sage Inventory Advisor dashboard shows you the health of your inventory, and directs you to those items needing quick inventory decisions.

Sage Inventory Advisor reduces stock-outs, so you have fewer fires to put out and fewer lost sales. It reduces stock overages so that less working capital is tied up in inventory, which also reduces carrying costs. And it underpins the drive to align and coordinate your team members, supply chains, and vendors according to facts on the ground as they unfold. With Sage Inventory advisor, decisions about inventory can be made faster and smarter.

Informed executives bust the myths

“But integrating a new technology like Sage Inventory Advisor into my ERP system is a long and costly project. And, although I like the ROI it offers, making an investment that takes a long time to pay off is difficult to justify. Plus, the stakeholders I’ll have to onboard are going to resist the need to learn something new. Besides, we stock new SKUs all the time, and it won’t help with those.”

As far as all that goes, informed executives know better.

Sage Inventory Advisor deploys and integrates with the Sage ERP system you use in less than a day. Because it’s a cloud-based subscription service, you pay for it with a modest, one-time activation fee and then bite-sized monthly payments that vary according to the netbook value of your inventory. Sage Inventory Advisor features intuitive graphic interfaces that are easy for even beginners to understand. It provides your team with benchmarks so you can compare your performance and monitor progress toward your goals.

Sage Inventory Advisor

Less than a day integration

Cloud

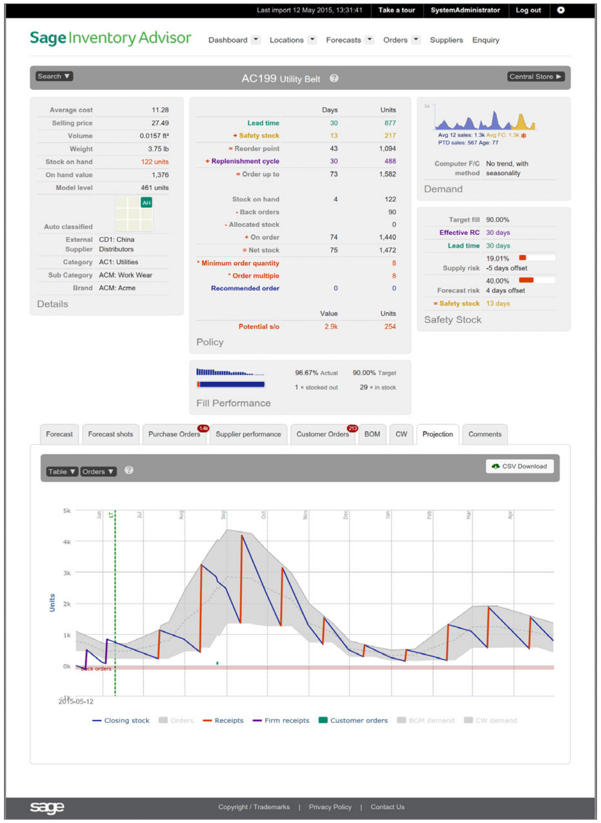
Subscription

Easy to understand

Affordable

ROI starts quickly

Fast, affordable, easy-to-use implementation means that ROI starts quickly. And, as we pointed out in the introduction to this e-book, because inventory represents such a huge investment for many companies, the reduced outlays of working capital for stock overages and carrying costs can be sizeable. Consider this: Across a spectrum of industries, annual carrying costs alone can average 25% of total inventory investment and lurch as high as 50% for underperforming companies. But best-in-class inventory managers report carrying costs as low as 7%! With large inventory costs the difference between 50% and 7% can be gigantic. Truly informed businesses have that kind of standard in mind—and more and more of them rely on Sage Inventory Advisor to get them there.



The Sage Inventory Advisor stock inquiry gives you the history and status of a specific SKU, and determines the appropriate level of safety stock you need to support your target fill rate.

A final look at inventory optimization

Of course, absolutely perfect inventory optimization isn't possible. In the unpredictable universe called the marketplace, stock-outs and stock overages will happen. On the other hand, inventory managers at best-in-class companies have proven that they can be substantially reduced.

Best-in-class companies look like the following:

- Customer loyalty is stronger because customers get what they need when they need it.
- Sales are actively involved in reviewing the forecast, resulting in improved alignment between sales, purchasing and finance.
- Finance have a robust perspective of projected inventory levels and the health of the investment.
- Planners monitor poor supplier performance, negotiate improved delivery and provide vendors with projected orders, helping them to plan.
- Identify inventory issues early and can drill-through to detail needed for action.
- Allocate investment and focus based on what is important.
- Have improved scheduling and reduced bottlenecks.
- Set safety stock for the right reasons, to protect against poor supply and unpredictable demand.

"In other words, replenishment happens when it's needed and not until, based on the evidence of actual demand and supply chain performance, rather than guesswork."

Best-in-class companies stretch their inventory targets in terms of improved turns and better availability. The energy shifts from trying to manage every item to focussing on what really makes a difference to the business. The knock-on benefits of improved planning, reduced excess inventory and improved availability are seen in increased sales, improved margins, reduced provisions, reduced write-offs, reduced returns and improved warehouse organisation and efficiency. This all results in an improved balance sheet and opportunites for growth.

And, when changes in the marketplace occur, these companies can adapt supply chains quickly. When extra working capital is needed, their finance departments can feel much more confident about finding the resources needed without sacrificing customer service levels.

In other words, every stakeholder is focused and aligned around the goal of maximizing profitability and cost containment through better inventory practices—and company leadership can find and correct problems and build on successes more readily. Fewer lost sales and fires to put out, less excess inventory running up costs—with new technology putting their data to work to quickly find a comfortable balance between too much and too little stock across the many SKUs you track. The name of that technology is Sage Inventory Advisor. It's now out in the field guiding many informed, proactive, and open-minded executives in their successful pursuit of inventory optimization.

Are you ready to join them?

Sage
6561 Irvine Center Drive
Irvine, CA 92618-2301

866-530-7243

Sage.com