VISIBILITY

THE NEED FOR SUPPLY CHAIN VISIBILITY HAS NEVER BEEN MORE CRUCIAL

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Optimizing Production Costs Through Visibility

YOU CAN'T FIX SUPPLY CHAIN PROBLEMS IF YOU DON'T KNOW WHAT THEY ARE.

JASMINE GLASHEEN

Many will argue that the season is won or lost on the shop floor. However, all too often production is a black box for retailers and their brand partners, who are often a world away. Without insight into their supply chain, retailers can't nip production costs in the bud before they escalate, leading to increased labor and production expense.

Seasonal trips to the factory can help increase visibility, of course, but in light of shifted corporate travel priorities the industry also needs to adopt virtual tools designed to amass the information needed to determine the root cause of product, worker and equipment issues.

Let's explore how retailers and brands can achieve shop floor visibility to mitigate remakes, bottlenecks and inefficiencies, as well as keep costs down and production timetables on schedule.

LOWER THE COST OF EMPLOYEE ONBOARDING

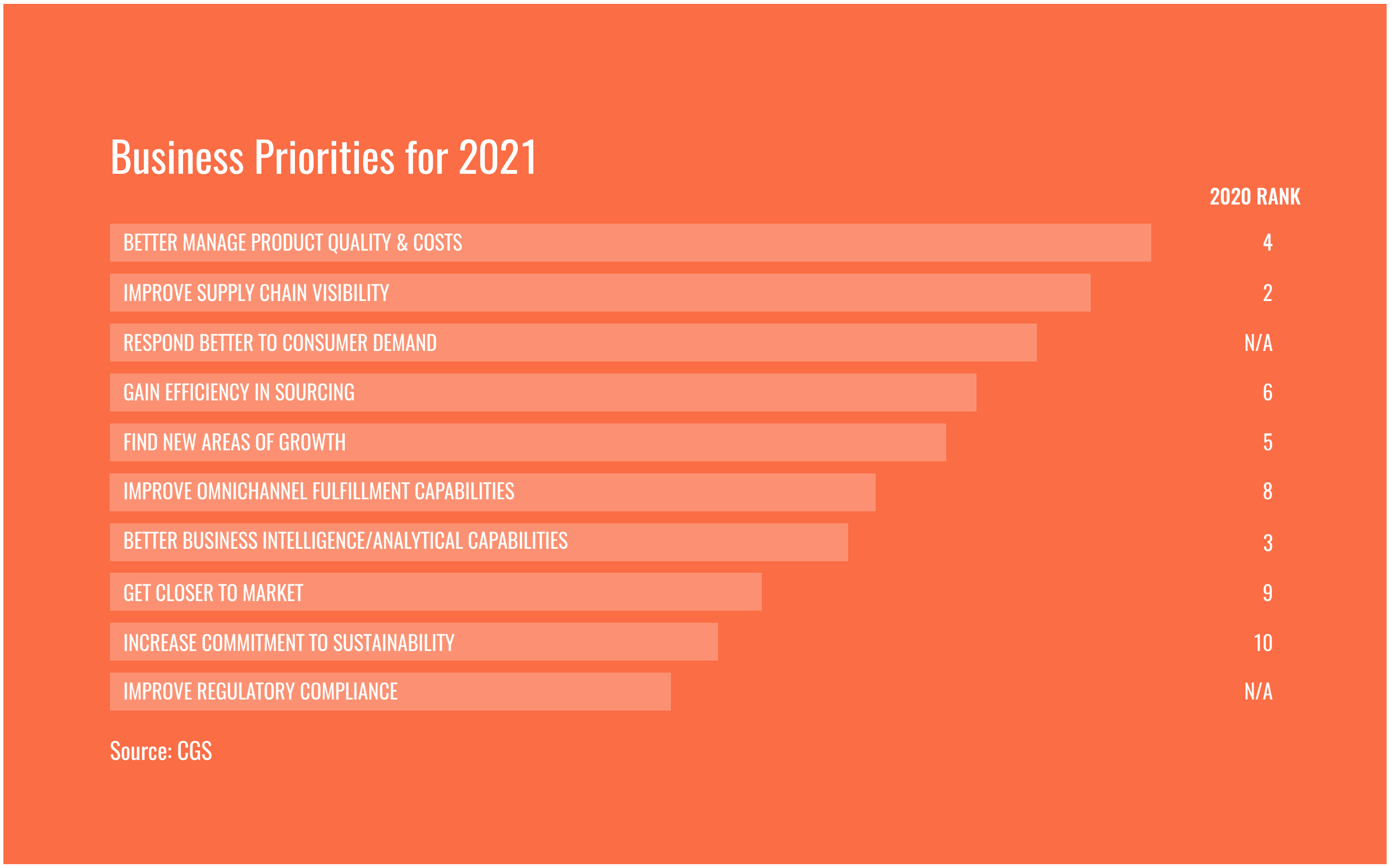
In the past year, we've seen extreme turnover across industries. The Bureau of Labor Statistics reports that job openings increased to a series high of 10.1 million (+590,000) at the start of summer. Job openings increased in several industries, with the retail trade experiencing the second highest rate of vacancies trade (+133,000).

In this environment, a company's ability to provide efficient and informative onboarding is an important component to their ability to stay afloat. Dean Scaduto is co-founder and senor editor at Kitchen Infinity, a leading home decor brand. He maintains that while onboarding a new staff member is always exciting, the process can be time-consuming.

Recruiting employees can be costly, with external recruiting fees for costing between 15 percent to 25 percent of the employee's annual salary. Even companies that don't hire out for recruiters wind up spending around $4,000 for each new employee. Not to mention additional costs like paperwork, in-person training, and the production lags that can come with getting a new employee up to speed.

"It's occasionally an afterthought to teach new hires key communication methods," Scaduto says, something exacerbated in to-

"With real-time data and visibility, manufacturers are more informed and can benefit from capacity planning improvements, a reduction in wasted time, risk mitigation and increased flexibility in decision making." —Daniel Binder, Columbus Consulting



day's increasingly digital world where even remote onboarding has become the new standard following the global pandemic of 2020. "Fortunately, an employee app can help with onboarding in a variety of ways, regardless of how your company executes the process."

And the quicker they get up to speed, the less it costs to get them there.

Scaduto suggests that brands and retailers focus on designing onboarding standards that are both clear and easy to follow, as well as educating new employees on the communication techniques utilized inside their firm.

"Your new hires will quickly feel like part of the team," he said. "and their onboarding processes will be integrated into the communication flow."

To provide adequate digital training, communication software needs to go beyond just the traditional channel of middle management to the frontline. Training protocols need to be communicated from corporate to the frontline, while inventory tracking needs to encompass manufacturing, back-of-house operations and shipping and delivery.

INCREASE WORKER EFFICIENCY DURING TIMES OF CHANGE

Worker turnover and onboarding new employees can result in lagging productivity. Michael Colorassi, vice president of innovation, product line management and sustainability at Avery Dennison Retail Branding and Information Solutions, says that one of the biggest communications challenges in apparel manufacturing is ensuring that demand signals cascade through the supply chain—from brands to garment manufacturers to material providers, and more.

"End-to-end communication is an obstacle because of the number of sourcing decisions involved and the length of the supply chain," Colorassi said. "The impact of Covid-19 has only exaggerated that challenge as many brands have been forced to react quickly to supply chain changes driven by Covid lockdowns."

Fortunately, through digitization, brands and retailers can facilitate supply chain visibility across their organization. This helps to keep production on schedule, reduces errors, and, ultimately, mitigates unnecessary labor costs.

Colorassi says that digitization eliminates bottlenecks in two ways. First, having visibility of all aspects of your supply chain allows teams to facilitate improved communication at various levels of the supply chain—between brands and garment factories, garment factories to their suppliers, and so on—to avoid any delays in availability of key components. Second, when brands understand how much inventory they have and where it sits in the supply chain, they can better anticipate supply chain outages and quickly address them.

The benefits of supply chain visibility are predictive as well as analytic. Improving communication is a continued benefit of digitization. Agile staffing can also help to fill in the gaps, despite any vacancies that arise from the pandemic, such as call-ins, leaves of absence and turnover. Fortunately, newer solutions enable brands and retailers to go beyond traditional demand forecasting to identify where issues most often arise within their organization. Digitization can help fill in the gaps where traditional management techniques fall short. Whether it's anticipating staffing issues, or bridging the gap between corporate offices and frontline production employees, complete supply chain visibility is key to retailers' ability to catch supply chain issues before they damage the organization.

REDUCE BOTTLENECKS WITH SUPPLY CHAIN TRANSPARENCY

Supply chain transparency isn't just a top-down proposition. Optimally functioning organizations collect data from every touchpoint along the product's journey to achieve cohesive insights. They then take action on those insights, whether it means refining their employee onboarding process, adding additional safety protocols to a production machine, or branching out into a new type of product based on purchasing data.

Daniel Binder is a partner at Columbus Consulting with 18 years as the president of global retail planning and allocation, as well as supply chain and digital transformation for DFS Hong Kong, a division of LVMH. Binder says that it is important to understand exactly where a manufacturer's production capabilities stand at all times. "This requires an understanding that stretches down to how materials are being transferred throughout production, bottlenecks within manufacturing process, and cost-saving measures."

According to Binder, receiving real-time data and having visibility into all portions of the manufacturing process allows for better decision making, as well as increased efficiency and a more optimized production process over time. "With real-time data and visibility, manufacturers are more informed and can benefit from capacity planning improvements, a reduction in wasted time, risk mitigation and increased flexibility in decision making."

When functioning optimally, end-to-end transparency eliminates information gaps. Retailers can use techniques such as 3-D supply chain mapping to see their organization as a whole. Being presented with a complete visual of their organization gives retailers the opportunity to prioritize areas where they need to refine their operation based on need, time investment and potential cost. They can then remedy any areas where lags or bottlenecks occur, to ultimately create a more streamlined and productive workflow.

Colorassi adds that mining customer data provides valuable information at nearly every level of a business. In the context of the supply chain, customer data provides insights into preferences and behaviors, which retailers can then use to modify their product offering, forecast/model demand, etc. "More accurate forecasting then enables the supply chain to more accurately plan capacities to avoid outages," he said.

REAL-TIME INVENTORY VISIBILITY REDUCES HUMAN ERROR

Employees are the keystone of any brand or retail organization. Yet employees can easily make human errors which, without interference, end up impacting production timelines, the bottom line and the end customer experience. Through digitization, retail brands and managers can achieve real-time inventory updates to monitor issues as they arise. The

"The very nature of real-time inventory visibility not only helps teams stay updated or have a detailed view of the state of their business, but also makes the entire inventory process more efficient and less prone to human error."—Simon Elkjær, avXperten

result is not only an organization with greater insight into its supply chain, but one that is able to weigh priorities to identify the most glaring production issues. Only then can they make modifications that result in the organization achieving maximum efficiency.

Simon Elkjær, the chief marketing officer at Danish electronics company avXperten, touts the benefits of inventory visibility within his company.

"The very nature of real-time inventory visibility not only helps teams stay updated or have a detailed view of the state of their business," Elkjær says, "but also makes the entire inventory process more efficient and less prone to human error. If the software and systems are used right, real-time inventory can help teams avoid costly mistakes, make the most out of their efforts and streamline their success."

Colorassi agrees that real-time inventory visibility is essential. However, he cautions retailers not to turn a blind eye to additional supply chain issues that can ultimately impact a brand's success with consumers. Colorassi cites a recent McKinsey study which found that 75 percent of consumers changed brands during the Covid-19 pandemic. "The top three reasons were: value, availability and convenience."

"The issues are not just limited to availability, convenience or speed," he cautioned.

70%

Share of executives in 2018 predicting supply chain will be a key issue by 2020. This has only increased post-pandemic.
Source: Accenture

"According to a recent CapGemini study, 79 percent of consumers are changing their purchase preferences based on sustainability. So, not only do brands need to ensure the integrity of their supply chains, but they increasingly must address the environmental and social challenges of those supply chains."

To address these challenges, brands and retailers first need to be able to identify them. Utilizing technology to achieve supply chain visibility can help retailers track, prioritize and manage where bottlenecks occur. The end result is fewer bottlenecks that eat up employee's billable hours: the staff budget is better utilized, employee's time is better spent, and the supply chain continues to function at maximum capacity.

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Plausible Deniability Doesn't Forgo Responsibility

NOT KNOWING WHAT'S HAPPENING IS NO EXCUSE FOR BAD BEHAVIOR REGARDING YOUR SUPPLY CHAIN.

JASMIN MALIK CHUA

When an eight-story building collapsed outside the Bangladeshi capital of Dhaka in 2013, killing more than one thousand people and injuring still more, some of the world's biggest brands struggled to discover if they had business dealings with any of the garment factories it contained. To uncover names such as C&A, Mango, Primark and Walmart, labor activists had to resort to picking through the rubble of Rana Plaza for clothing labels, customs documents and production records. Even then, many claimed not to have authorized production at the site.

Their claims of ignorance were, for the most part, genuine, throwing into relief a longstanding excuse by an industry where supply-chain opacity is a feature rather than a flaw.

Globalization, not to mention increasing speed to market, has made untangling vast operations across myriad countries a difficult, if not impossible challenge. Brands typically forge contractual relationships only with their finished-goods suppliers, leaving what happens in the second, third or fourth tiers largely in the dark. But even first-tier partners often enlist their own subcontractors, which in turn can portion out work to other, more ad-hoc "shadow factories" that fall under murky legal and regulatory purview.

For a while, this hodge-podge of a system worked, deflecting blame and conferring a sense of plausible deniability for brands when supply-chain imbroglios reared their heads. And it might have continued this way if Rana Plaza hadn't happened, changing the way consumers would view the borders of corporate responsibility forever. Existing and forthcoming human rights due diligence laws are delivering another reckoning, reshaping a landscape that has predominantly relied on self-governance and voluntary disclosures.

OVERCOMING OPACITY WITH BETTER VISIBILITY

Broader visibility is by no means an easy ask, experts say. Most clothing and footwear purveyors don't own their own factories, and mapping out disparate operations across immense physical distances requires considerable time, resources and commitment. Take

"This increased complexity of supply chains has resulted in many apparel brands and retailers struggling to obtain full traceability of their products, and in turn preventing them from giving complete visibility to shoppers." —Pippa Stephens, GlobalData

cotton, for example. The fiber cycles through at least five stages before it arrives at the cut-and-sew facility. Behind that lie the fabric supplier, the yarn spinner, the cotton trader, the cotton gin and then, finally, the cotton farmer. All those steps carry with them their own social compliance perils, whether it's related to worker safety, forced labor or wage theft. Multiply those risks by the litany of materials and components brands employ in their product, and the burden can quickly become crushing.

"The rapid growth of the apparel industry and the rise of fast-fashion retailers has led many manufacturers to outsource certain stages of production in order to achieve faster time frames and lower costs," said Pippa Stephens, an apparel analyst at GlobalData. "This increased complexity of supply chains has resulted in many apparel brands and retailers struggling to obtain full traceability of their products, and in turn preventing them from giving complete visibility to shoppers."

Brands might choose to turn a blind eye for other reasons. "The more you know about the supply chain, the more responsibility you need to take. It might be easier for some brands to claim it is too complex or too difficult, so they'll not need to take any responsibility for what they might find in their supply chains," said Sandya Lang, sustainability manager at Nudie Jeans, a Swedish label that has vowed to be the most transparent denim brand in the world. "[And] If you are aware of all the production steps for all your products, it becomes difficult to ignore that all those people need to make a living as well and it will be highly questionable to have a too-low selling price."

But not knowing brings its own share of dangers. A lack of insight heightens risks to workers, since limited regulatory accountability can drive factories to underpay their employees and neglect health and safety requirements. It encourages silos, stymies collaboration and promotes a disregard of region-specific risks, such as forced labor in the cotton fields of China's Xinjiang Uyghur Autonomous Region or physical and sexual violence against women in the spinning mills of India's Tamil Nadu.

"Visibility and transparency through-

MOST IN THE APPAREL INDUSTRY DON'T OWN THEIR OWN FACTORIES, AND MAPPING OUT DISPARATE OPERATIONS ACROSS IMMENSE PHYSICAL DISTANCES REQUIRES CONSIDERABLE TIME, RESOURCES AND COMMITMENT.

out every step of the supply chain [are] key in order to reduce possible risks and ensure a fully sustainable practice," said Elena Faleschini, global field marketing manager at Isko, the world's largest producer of denim. "It holds every stakeholder in the supply chain accountable, and thus responsible, for their part of the process, and in this way, all parties feel involved and committed to the end result."

At the same time, consumers are more likely to balk at buying products that emerge from ethical and sustainable "black boxes." Three-quarters of European consumers surveyed in 2020 by advocacy group Fashion Revolution, for instance, agreed that brands should do more to improve the lives of the people who make their clothes, up from 72 percent in 2018. Another 69 percent of those polled wanted to know how their clothes were manufactured, compared with 59 percent in 2018, indicating a mounting desire by people for greater transparency.

Amid what Sarah Ditty, policy director of Fashion Revolution calls an "urgent, emotional desire to know more about how their clothes are made," there is a percolating movement to deliver, both internally and externally.

In 2019, H&M trotted out on its website a new "consumer-facing transparency layer" that reveals details about how each item of clothing it sells is manufactured, including the name of the supplier, its contact information and the number of workers employed there. This past January, VF Corp. announced it was broadening its traceability mapping program by publicly disclosing first-tier to fourth-tier information for dozens of products in a consolidated, downloadable file. The initiative currently dives into 46 of its "most iconic" products, including JanSport's Big Student Backpack, Kipling's Art M Tote Bag, The North Face's Women's Down Sierra Parka and Timberland's Men's Con 3-Eye Classic Boot. By December, the conglomerate plans to cover twice as many products.

"Traceability is foundational to building an ethical and sustainable supply chain and drives improvements for both people and our planet," Shanel Orton, director, VF responsible materials and traceability, said at the time. "The new data helps us further validate adherence to VF's policies and supplier requirements throughout our supply chain, giving our teams, stakeholders and consumers greater confidence that our products are manufactured in a responsible manner."

OVS is another brand that is making strides, both internally and externally. In July, the Italian label topped Fashion Revolution's annual Fashion Transparency Index for its public disclosure of its human rights and environmental policies, practices and impacts down to Tier 3. Its increasing supply-chain visibility goes hand-in-hand with transparent public communication, said head of sustainability Simone Colombo. "When you know where your product is processed, it simply allows you to intervene whenever it is necessary, supporting suppliers in case of need or choosing the facility with the technology you need," he said. "If you are blind with regard to this, you are accepting all the risks and losing the related opportunities."

The problem with the industry today, he said, is that "many brands are still working according to a 'buying approach,' having a dialogue only with Tier 1 manufacturers or trading companies [and] focusing on the materials themselves instead of caring for how they are made and who are the other stakeholders when placing a production order." By doing so, not only are brands missing out on spotting risks, but they can also lose out on potential leverage.

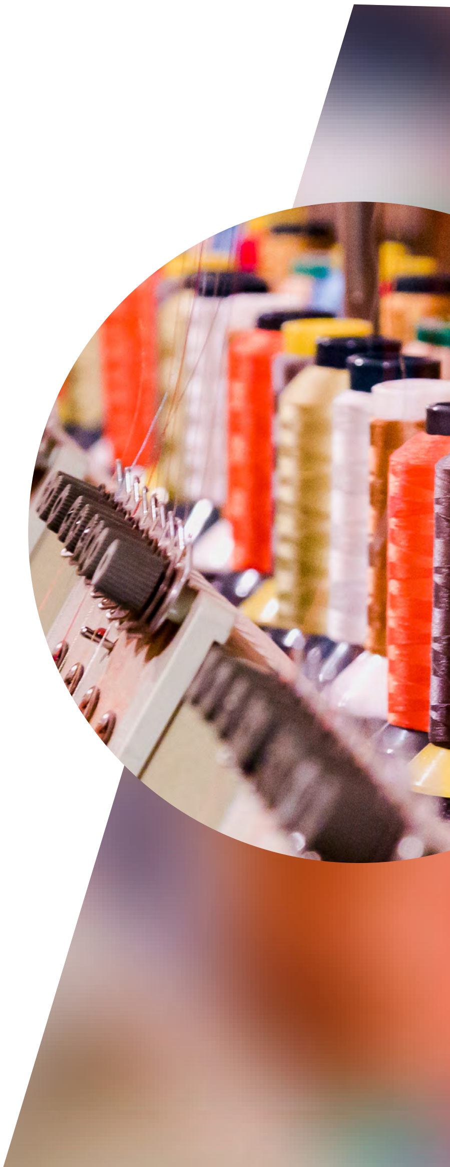
"Knowing the key players of your supply chain allows you to have a better negotiation process," he added. "You can partner with suppliers in tiers beyond the Tier 1 to plan the production of strategic fabrics or other parts allowing for a win-win development process thanks to better forecasting."

MAKING TRACEABILITY OBLIGATORY

With shifting laws in Europe and elsewhere, however, visibility may no longer be a "nice to have" but a legal obligation.

French firms are already beholden to a Corporate Duty of Vigilance Law, which requires them to identify and prevent social risks that may occur as a result of their business activity. In Germany, the recently passed

"[Visibility and transparency] holds every stakeholder in the supply chain accountable, and thus responsible, for their part of the process, and in this way, all parties feel involved and committed to the end result." —Elena Faleschini, Isko



Act on Corporate Due Diligence Obligations will soon levy fines on German companies that fail to mitigate labor abuses in their supply chains. Belgium, the Netherlands and the broader European Union are mulling restrictions of their own, as is the United States, whose system of Withhold Release Orders is increasingly blocking products with ties to forced labor in Xinjiang. Uniqlo received a taste of this earlier this summer, when U.S. Customs and Border Protection seized a shipment of shirts because of suspected links to a Xinjiang paramilitary organization.

Labor campaigners have also used the laws to suggest that holdouts of the renewed Accord on Fire and Building Safety in Bangladesh, a landmark safety agreement that arose in the wake of Rana Plaza, could find themselves exposed to considerable legal liability.

Hendrik Alpen, sustainability and engagement manager at H&M Group, isn't spooked. He said that upcoming EU legislation could boost voluntary efforts by brands and multi-stakeholder initiatives such as Better Work and the Fair Wear Foundation as "part of a toolbox of complementing measures."

"We fully recognize the importance of tackling social and environmental challenges in our value chain," he said. "H&M Group believes that aligned requirements at EU level could support further progress and avoid fragmented national approaches. If designed well, an EU framework can lead to increased understanding and action on companies' human rights and environmental risks, more coordinated efforts and ultimately speed up the transformation toward more sustainable development."

Brands should also think of visibility as a team effort. Tackling complex social issues that extend beyond the influence of private business, Alpen said, is a shared responsibility that requires a "collective approach from actors across all aspects of society working alongside each other."

"That's why we work together with stakeholders including governments, civil society and our competitors, to name some," he added. "Without collaboration at that level, it is incredibly difficult to bring about systemic and lasting change."

However they go about it, it's vital that brands nip burgeoning problems "at the source," rather than wait for something to happen, according to Nate Herman, vice president of the American Apparel and Footwear Association (AAFA), an industry group whose members include J.Crew and Patagonia. While there isn't a "single silver bullet," he said, "If you're checking at the end, it's too late."

Reputational and regulatory jeopardy aside, a lack of visibility also runs the risk that a company's supply chain doesn't align with its values. "We often talk about how we are exporting values," said Stephen Lamar, president and CEO of the AAFA. "We are bringing our values with us, and not only into the Tier 1 factories, but also the Tier 2, Tier 3 and Tier 4 factories. It's something that companies are very proud of, that cumulative effect over years and generations."

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4,200

Number of supply chain disruptions in the first 9 months of 2020 according to ISM.

Embracing Technology

HAS THE PANDEMIC PUSHED THE INDUSTRY TO FINALLY FORGO MANUAL SPREADSHEETS AND OTHER ANTIQUATED METHODS?

JAMIE SORCHER

The fashion industry, one of the world's biggest, is expected to generate $2.25 trillion by 2025, yet it remains largely stuck in the analog age.

When the global pandemic made working from home the new norm, the abrupt change underscored the interconnected nature of every department and organization along the apparel industry's supply chain—and served as a much-needed wake-up call. While some companies had completed or at least started transitioning to digitized operations before then, most were left scrambling as widespread shutdowns became one of many unforeseen obstacles.

Serving as a catalyst, the pandemic wasn't the only trigger prompting an old-school establishment to step up its communications game. Changing consumer expectations, evolving consumer shopping and spending patterns, sustainability concerns, advancing marketing mixes and outdated collaborative tools, have primed the fashion business for a future-forward facelift.

Tony Drockton, chief cheerleader (as well as founder and chairman) for Hammitt, a California-based handbag maker, is also a cheerleader, it turns out, for tech. "Apparel is one of the oldest industries in the world and like any legacy industry, it's weighed down by its past," he said. "Technology affords a huge opportunity to embrace our history but also lean into change by enabling data-driven decisions around supply chain, inventory, designs and distribution. If used properly, it can solve many of the current problems of over-production which leads to brand dilution, profit erosion and, inevitably, to irrelevance for many brands, besides all the obvious environmental issues."

Hammitt, for instance, was already prepping prior to the pandemic. Drockton had embraced cloud software and was open to further enhancements. "Our tech stack was fully built out pre-pandemic, like G-suite, Shopify, Netsuite, NuOrder, Zoom, Slack and Klavio," he said.

But as the pandemic lingered, Drockton quickly added a virtual showroom module, upgraded connectivity at all company locations and leaned into streaming. "During the pandemic we added PLM software to smooth our supply chain and drive better decisions with data," he said. "We also added to our data team to help tie everything together to allow us to continue to scale rapidly and profitably. We are constantly upgrading our software because the key to efficient, accurate communication internally, with vendors or customers, requires our team to have quick access to all areas of the business."

Drockton mentioned that all departments now have custom dashboards to allow

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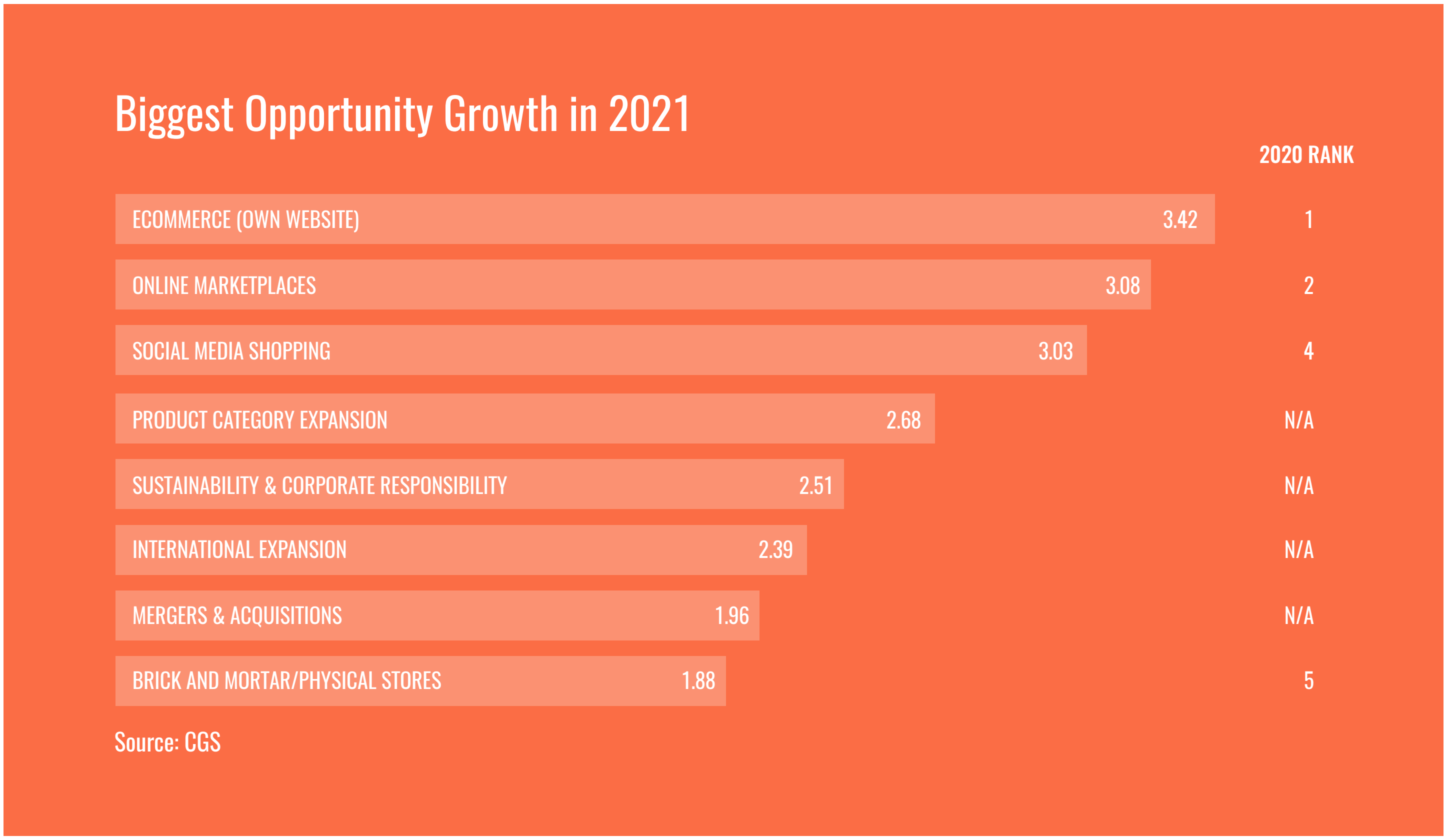

them to make faster decisions while minimizing duplicitous communication. "Having just email today is equivalent to a receptionist writing out messages after answering a rotary phone," he said. "You're dead in the water."

Liza Amlani, principal and founder of Retail Strategy Group, concurred. "The pandemic, the great accelerator for the retail industry, enabled teams to rethink their processes and to work digitally—from design to development to production," she said. "From a design perspective, it meant implementing technologies across categories and streamlining. We were finding within a company that there were different inside sources or different tools for sketching. Even simple things had to be revisited. There was no way to courier sketches or drawings for approval. All of this forced people to make a change—and the new digital way of doing things is the only way for teams to truly collaborate."

According to Amlani, the results speak for themselves. "By collaborating digitally, companies can quickly make changes and revisions because everyone is using the same digital tools or platforms," she said. "It simplifies and strengthens communication when working with factories and development partners since it's easier and immediate to understand constraints of designs or what needs to change in terms of aesthetics or production qualities."

Ultimately, however, it's about changing mindsets and behaviors.

"Retail in the apparel, footwear and even home world has been slow to the process of digitizing—and these industries need to do this to be more efficient, to eliminate redundancies and manual tasks," she said. "Not only does real-time data provide a competitive advantage, but even more importantly, it frees up time for fashion executives to be more creative. They're spending less time buried in excel sheets and manual reporting."

At apparel company xSuit, (designed for the new pandemic workforce with athleisure comfort), technology is not only part of the product, but it's also part of the firm's mindset. In fact, the company features the letter "X" in its name specifically for its tech significance. "We chose the letter X for its technological, scientific and intellectual meanings," states the firm's website. "It's always been a powerful symbol, just as powerful as the garments we wanted to create. X represents the crossing of two things, which was the basis of xSuit—crossing sartorial workwear cloth-

ing with performance wear to create a new category—SmartWear."

Founder Max Perez has embraced real-time communications for xSuit, founded in 2017, and has prioritized the shift to digital. He implemented Monday.com collaboration software for all team members' communications, WhatsApp, and other real-time methods. "Monday.com is particularly strategic for us with team members based both here in the U.S. and in China with the need to collaborate across time zones 12 hours apart."

By breaking down boundaries, cloud-based communications allow everyone in the supply chain—from design to manufacturing teams—to learn about changes as they happen versus the manual process of emailing, which is inefficient particularly across time zones. Additionally, a cloud-based environment translates to enhanced security and improved access to applications, including email and video conferencing, on both desktop and mobile devices.

"Email has found its place as the most-often used tech within the industry because it's largely the most commonly accessible," said Mike Nemeroff, CEO and co-founder of Rushordertees.com, the official partner of the Philadelphia 76ers as well as supplier to Fortune 500 companies and mom-and-pop shops. "From designers to executives to production lines, warehouses and beyond, the thinking goes that since an email is always received, it's the fastest and (more importantly) lowest cost way to get a message through."

But that isn't always enough. "Now, we're looking at Unified Communications as a Service (UCaaS) to make sure all types of communication happen with the same speed and reliability as email," said Nemeroff. "With everything from telephony to IM and videoconferencing offered via the cloud, apparel organizations can ensure whatever means of communication they choose goes through effectively and without accruing outsized fees in what is often a bottom-line industry. Opening up those new forms of communication can lead to better collaboration as well, since we're no longer restricted to the style and format of a typical email."

The good news for the industry is that fashion retailers are already moving in the right direction employing 40.3 percent more data-related professionals than in 2020, according to a recent report from algorithmic merchandising firm Nextail.

"Fashion technology is exploding throughout all parts of the business," said Drockton.

"Some of the biggest opportunities ahead are logistics in balancing time, risk and money. Shipping directly from the factory to the consumer has already arrived in some segments and it will become the norm in the next decade. This will solve inventory issues, accelerate turns and allow for nimbleness in design and pricing."

Artificial Intelligence (AI) is one area that tech-savvy companies may be curious about in the near future. It offers apparel industry executives an opportunity to analyze data, forecast trends, address market demands and review and respond to inventory information.

Technology is also helping to re-create the buying experience with virtual showrooms that can be available anytime and in any location. With the option to set up an online space to showcase products as soon as they are ready, companies can invite buyers to visit at their convenience. While not new, the technology has been well received and some industry watchers think this could be the start of more digital selling for the footwear and fashion worlds—or at least a transition to a hybrid that combines both virtual and physical showrooms.

Too often, Drockton concluded, fashion tech is siloed as a nice-to-have but should be looked at as a new critical machine in the manufacturing line. "No one would consider trying to manufacture clothing without a sewing machine, but for some reason they feel technology is for other industries," he said. "The modern fashion brands lead with tech, layer tech throughout the processes, and manage to the data. That's why they are winning."

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"Not only does real-time data provide a competitive advantage, but even more importantly, it frees up time for fashion executives to be more creative. They're spending less time buried in excel sheets and manual reporting." —Liza Amlani, Retail Strategy Group

SPONSORED

SOLVING PRODUCTION PROBLEMS BY DIGITIZING THE SHOP FLOOR

Just as a doctor could never prescribe medical treatment without first diagnosing a patient's symptoms, a brand or retailer can't adequately fix production issues along their supply chain without getting to the root of the problem. The Rx? Supply chain visibility through a digitized shop floor.

Before the pandemic swept in and upended everything virtually overnight, top concerns from brands and retailers tended to focus on price—keeping costs low while producing and selling the most product in the most-efficient manner. Still valid concerns, of course, but now brands and retailers have new concerns to keep their business healthy. As the market pivoted to smaller, more-customized work orders—with customers demanding more fashion goods at faster speed-to-market—retailers are overwhelmed just trying to keep up.

"The sheer quantity and variety of runs with very short time to delivery outlines the need for technology more than ever," said Paul Magel, president, business applications and technology outsourcing division, CGS, whose BlueCherry® Shop Floor Control digitally connects the factory floor. "It takes an end-to-end solution to give companies visibility and agility in the supply chain and meet the changing consumer demands."

Supply chain digitization is necessary from the moment the order is placed—starting upstream to make sure items are produced properly, all the way to when it ends on the retailers' shelf or in consumers' hands if sold direct.

"It's about monitoring all your symptoms before you get the prescription," said Magel. "Do you have enough supplies? Where are the cargo containers?"

Shop Floor Control (SFC) technology, also known as production management, piecework payroll and manufacturing execution software, offers manufacturers a way to "capture, track, analyze and benefit" valuable production information in real time. Meanwhile, wireless touch-screen mobile tablets positioned at each production workstation or in a supervisor's hands make it seamless.

Assessing ROI

Time is money, especially on the production floor, where any production line problem is multiplied by thousands of pieces being manufactured.

Work-in-progress (WIP) means work not paid. From a cash flow perspective, a garment that got held up while 99 percent finished is just as unproductive to bottom line as one that is 5 percent finished.

"Less WIP means more products are finished sooner, triggering earlier invoicing and payment," said Magel. "When companies leverage SFC technology, they move quickly to evaluate capacity, plan and seize new business opportunities. For many manufacturers, these opportunities also include taking on a larger number of smaller orders, which opens them up to a broader client base."

Return on investment

Systems are an investment, but manufacturers using SFC technology consistently report attaining ROI within six to 12 months, noted CGS. Typical savings include: 5 to 25 percent increase in operator productivity; 10 to 30 percent decrease in excess labor costs; 10 to 30 percent reduction of WIP; 1 to 4 percent reduction in payroll overpayment; plus lower printing, handling and payroll costs.

At the end of the day, a software solution is only as good as the people who use it. Without the right commitment to enabling software and training teams along a complex supply chain, challenges can thwart progress. And, trepidation to go beyond the basics can hinder a smart system from growing with the needs of the company.

"The biggest challenge to implementing any new software or technology is engaging with change management," said Magel. "A company's change management principles should be aligned with the project, and then the project will run according to plan and comply with a customer's expectations."

Once committed, companies that stay on top of feedback and suggestions will ensure the best way to use and evolve the product to keep up with market needs and trends.

There are many moving parts to a factory and running the business as a whole, and once implemented, SFC gathers extensive information that can be parsed to optimize various operations.

First, BlueCherry® SFC Enterprise offers visibility into and actionable data around the many areas of a factory. It collects real-time data on every production activity and presents users at all levels of a factory with up-to-the-minute views of what they need to act on most.

For example, sewing operators and production workers see progress toward goals. Supervisors see alerts about bottlenecks along with recommendations for how to prevent or remedy them. Mechanics can track and manage machines, equipment, parts, inventories and maintenance records. Plant managers see

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how lines are performing against goals. Executives see capacity and constraints across multiple locations and make informed decisions about where to route incoming orders.

Second, SFC technology improves productivity and reduces costs, by enabling factories to identify, understand and minimize downtime and off-standard time that drain profits. Production associates, for example, can self-serve to answer questions about garment construction instead of signaling and waiting for a supervisor's help. SFC terminals provide easy access to clear assembly instructions, in the operator's own language, with 3D instructional images and videos.

Third, with advanced business intelligence, SFC's analytics offer knowledge to make better business decisions, faster. The platform's built-in analytical capabilities and native integration let engineers and executives utilize shop floor data to answer pressing questions and solve complex challenges. And, data can be easily analyzed without specialized information technology (IT) support or third-party business intelligence (BI) software.

Case Study

Star Garment Group is one company that has benefited from Shop Floor Control technology.

Before, the Sri Lanka-based company, which is a full-service provider of fashion apparel across various categories with 14 factories, hadn't accurately tabulated how much off-standard time occurred during a shift or day. Star was aware of reasons for various manufacturing setbacks, but it didn't have quantifiable data to accurately measure the size and causes of the problems.

"As the saying goes, you can't manage what you can't measure," said Magel.

With SFC data in hand, Star was shocked by how much the non-productive time added up and drew from the bottom line. Gaining greater visibility into this problem put Star on the offensive, and the company has since eliminated 90 percent of off-standard time while gaining double-digit productivity increases.

"The real-time data enables people at various levels, from production workers to supervisors

to management, to make informed vs. informal decisions," said Star Managing Director Arumugampillai Sukumaran. "Now we can solve issues as they happen, and when you make decisions quickly, productivity goes up. It's a chain reaction."

Today, Star Garment's floor managers know immediately when a machine goes down, and a sewing operator enters non-standard time. They know precisely how long it took to repair that machine and get the operator back to work. When they learn an operator is out sick, supervisors can consult the SFC solution on tablets to get quick recommendations for how best to rebalance a line. Operators see a real-time view of their own throughput and that of their production line, including whether their pace is on track to hit pay incentives. Leadership is more aware of critical issues and can better get to the root causes of persistent problems, such as why some styles take longer than expected to make.

"Shop Floor Control has shed a scientific light on causes and effects of time lost to bottlenecks, machine downtime, absenteeism and other issues, while giving management valuable, real-time visibility to production status," said Magel.

And like a microscope that helps illuminate a small problem before it becomes a bigger one, supply chain visibility only makes a company stronger for the future.

How to Evaluate Factory Productivity Both Local and Global

IN A CONSTANTLY CHANGING WORLD, LOCATIONS AND FACTORIES MUST BE CLOSELY, AND CONSTANTLY, SCRUTINIZED.

GLENN TAYLOR

Although the apparel supply chain already had been undergoing plenty of geopolitical changes in recent years, the Covid-19 pandemic and the ensuing demand escalation forced brands and retailers to reassess what constitutes productivity at the factory level. In kind, many are reevaluating their suppliers as they discover optimal, cost-efficient sourcing options and are taking a stand to improve efficiency in their own manufacturing operations.

Brands don't necessarily have to reinvent the wheel when it comes to understanding productivity, it's just that the objective of any criteria used must be clearly defined.

One such example, according to Jason Schott, chief operating officer of leather jackets and motorcycle apparel seller and manufacturer Schott NYC, is what he calls "standard average hours," or SAH. Every jacket style the company produces is assigned an SAH value, which indicates how much time it would take an employee working on each, to determine efficiency and even monetarily incentivize productivity.

"Each one of our jackets can have 40 to 50 value-added operations that go into the product," Schott said. "We're tracking every employee and each of those operations, and we're constantly looking to see how we're doing. And if those employees are able to do better than the average, then they can make more money."

Beyond the production benefits, Schott NYC now has the chance to identify key operators who are excelling in their roles, enabling the company to better understand who to promote and where to make certain shop floor processes more efficient.

"We're actually going through a process right now where we took one of our best operators off of the sewing machine, because he was always thinking ahead," Schott told Sourcing Journal. "We just saw that there was more potential and now he's training two people to do his old job, while becoming a supervisor for the floor."

Luckily for Schott NYC, the company's manufacturing operates out of one factory in Union, N.J., which also is shared with the brand's headquarters. While many apparel operations—especially those manufacturing in factories overseas—don't have this luxury, having tabs on top performing employees can provide a significant immediate benefit for all parties.

"We measure [supplier] performance based on their delivery, their quality, their price value, and this last piece is difficult to measure but understandable, the loyalty of the service aspect." —Jill Schwartz-Cheng, LT Apparel Group

VAST NETWORKS NEED SIMPLICITY MORE THAN EVER

Beyond productivity, global brands may share more concern over exactly where their products originate, leading them to ask whether to diversify operations further or relocate sourcing entirely. This issue has only gained importance in 2021 as forced labor concerns became more prominent and ports remain clogged as the pandemic constrains operations at factories in Southeast Asian countries.

LT Apparel Group, a manufacturer, designer and distributor of children's wear apparel for brands such as Adidas, Carhartt and school uniform brand French Toast, has a vast sourcing network that it needs to keep tabs on. The company operates its own facilities in Bangladesh and Vietnam, and also has a shared stake in vendor facilities in China, India, Sri Lanka and Indonesia among others via a joint venture partnership called Comtex.

Jill Schwartz-Cheng, vice president of global sourcing at LT Apparel Group, said the decision-making process of its sourcing matrix, and what suppliers to work with, still boils down to a simple methodology of four key criteria.

"We measure performance based on their delivery, their quality, their price value, and this last piece is difficult to measure but understandable, the loyalty of the service aspect," Schwartz-Cheng told Sourcing Journal. "How much do they value us as their partner? Delivery is quantifiable, while quality and price value could also be measured. The last piece has more of a human factor to it, but that's how we measure everybody, it's nothing complicated."

COMPLIANCE IS KEY

When evaluating its supply chain partners, which largely come from Thailand and China, apparel and footwear designer, producer and licensor Xcel Brands prioritizes compliance above all.

Robert W. D'Loren, chairman and CEO of Xcel Brands, highlighted four areas of compliance that he felt were the most important metrics for the company to keep tabs on: systems compliance, calendar compliance, quality control compliance and materials input compliance.

He noted that the success of the four compliance indicators determines whether Xcel will reevaluate where the company sources its products, primarily since the communication and overall system integration process is easier.

"We seek production partners that can work seamlessly in our systems and with our team members to innovate production solutions in terms of materials and make," D'Loren said. "This applies to apparel, jewelry and home products."

Although many brands are turning to supply chain compliance companies to conduct overseas factory audits, D'Loren noted Xcel doesn't work with third parties, instead relying on its own in-house team.

LT Apparel Group, on the other hand, recently entered a partnership with a company that offers supply chain services including auditing, factory assessment, advisory and program management.

"Our compliance team works very closely with them to help us assess new factories and existing factories in terms of compliance and financial stability, to give us more insight," said Schwartz-Cheng. "Rather than gathering just with our homegrown methodology, we get a more global view of what's going on."

Schwartz-Cheng said that the focus on compliance across many apparel brands is still a relatively recent concern.

"If your vendor partner is on board with that, compliance is the new thing that five years ago was not addressed to the degree that is being addressed now," Schwartz-Cheng said. "Right now, everybody is definitely including sustainability and social responsibility, although the latter has been around for a long time actually. But now the two seem to go hand in hand. It's not negotiable. It's a must."

DON'T OVERLOOK TRADITIONAL KPIS

The environment surrounding the global supply chain may be drastically changing, but that doesn't mean fundamental metrics such

"We seek production partners that can work seamlessly in our systems and with our team members to innovate production solutions in terms of materials and make." —Robert W. D'Loren, Xcel Brands

as throughput, cost per unit manufactured or work-in-process (WIP) have lost their luster. If the pandemic has taught brands anything, it is that they must be more cognizant of the supply chain's underlying issues, particularly when determining sourcing.

While production across facilities factors into Xcel's decision making, they still go hand in hand with external issues, according to D'Loren, who said "trends in social and environmental issues have caused us to consider alternative sources of production and materials." Once manufacturing 70 percent of clothing in China, Xcel Brands has dipped that number to approximately 20 percent.

"We maintain the same standards as in the past. That said, there is a greater emphasis on true collaboration with our production partners," D'Loren said.

Schott agreed with the assertion, citing costs and timing as bigger impacts that must be factored in tandem with traditional metrics.

"Right now, the supply chain is in such a state of flux that many of the KPIs are kind of open ended right now. There's a rising cost of raw materials, that we have no choice but to accept, because first of all, the cost of shipping by container is insane. And the timing is ridiculous," Schott said. "So, it is not as much looking at new KPIs as just a new look at the same KPIs. Costs are just completely different than they were even a year ago."

SUSTAINABILITY CAN'T BE IGNORED

No conversation about production can be discussed in 2021 without highlighting the sustainability ramifications. To ensure that key sustainability KPIs such as carbon and water footprint were being reached and transparently shared with any supply chain partner, Turkish denim manufacturer Isko launched its own system of Environmental Product Declarations (EPDs).

Isko's EPDs are designed to measure the environmental impacts of one square meter of fabric throughout its life, from growing the raw materials to delivery to the garment manufacturer, with the core fabric production under Isko's direct control.

The idea is that efficiencies and continuous improvements in both the manufacturer's processes and raw materials can drive down the impact of textiles.

"The EPDs were created with input from external stakeholders to create validated Product Category Rules (PCR) for denim," said Ebru Ozkucuk Guler, senior CSR executive at Isko. "These are publicly available for other producers to use to improve transparency on actual impact across the industry and allow for fair comparison between manufacturers. We strongly encourage brands to request EPD Life Cycle Assessments from suppliers to enable a credible evaluation of actual fabric impacts. We now have EPDs covering all our fabrics. With this information we can develop fabrics that are more responsible and track improvements over time."

The development of more responsible fabrics is yet another major benefit of reassessing factory productivity. Regardless of where a brands' facilities are located, apparel players that are falling behind must clearly define what goals they are striving for and internally assess whether they are both overthinking their ambitions and prioritizing compliance at an appropriate level.

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4 Biggest Pandemic Changes

- Greater adaption toward e-commerce
- Contract Renegotiations
- Alternate Sourcing Options
- Shortages/Out of Stocks

Source: Sourcing Journal

Tech Adoption Key to Inventory Visibility

EIGHTY PERCENT OF RETAILERS ESTIMATE LOST SALES OF AT LEAST 3 PERCENT DUE TO ALLOCATION ISSUES SUCH AS INFREQUENT STOCK REPLENISHMENT.

GLENN TAYLOR

When used effectively tools like digitalization and artificial intelligence and could help retailers accomplish a perennial priority—cutting costs.

Among retailers that adopted enterprise-grade, AI and technology-driven applications for assortment planning, 76 percent reported cost savings of at least 3 percent or more, according to a June survey from Coresight Research. The cost benefits were even greater for 36 percent of these businesses, at 5 percent or more savings.

But despite the numbers tilting in the right direction, more retailers than not are still losing sales and carrying more inventory than they should due to a lack of AI-driven forecasting and promotion optimization platforms.

More than 80 percent of the 170 respondents surveyed estimated lost sales of at least 3 percent due to allocation issues such as infrequent stock replenishment—an issue that has become even more of a concern as supply chains remain constrained. Fifty-seven percent of the respondents said that at least 3 to 6 percent of total sales were lost, while 18 percent believe allocation issues negatively impacted as much as 6 to 9 percent of sales.

"Honestly retailers are still stuck in that '80s and '90s mentality around allocation," Prashant Agrawal, CEO of Impact Analytics, said during a recent webinar. "You want to make sure that you're getting that right product to that right place, and you can't do that in Excel, it's just not humanly possible. You've got to rely on the AI and machine learning, and once you do, you actually see the results like this. The reality is, and you can see it in the earnings reports for some of them, whether it's Target or Walmart, AI is actually helping their bottom line. The reason to do this is that it makes you a lot of money."

And despite the industry's pursuit of lean inventory to prevent overstocking and reduce markdowns, excess inventory remains a widespread problem. As many as 73 percent said they had at least 5 percent excess inventory on average after a selling period, with a minimum of 10 percent overages at 30 percent saying they had 10 percent extra at minimum.

During the presentation, which was hosted by Coresight founder and CEO Deborah Weinswig, Agrawal said that lost sales and excess inventory are indicators that retailers, particularly at the chief merchant level, are doing too much and preventing AI from fully taking the wheel.

"Lost sales should be minimized. Will

they happen? Yes, but if you're using true science, it should be very much minimized," Agrawal said. "The same thing with excess inventory. When you look at that, the allocation is pure science. If you're touching this too much, you're already lost around this, and that's what we see with teams. You really want them to make this the autopilot part of the process."

Analyzing holiday planning at JoAnn Stores, Agrawal pointed out that the specialty retailer changed a decision to allocate more beach ornaments to coastal markets after learning that beach motifs actually sell better inland.

"If I'm at the beach, I don't need that on my Christmas tree," he said. "If I'm sitting in Chicago, I want to remember my beach holiday that I had in San Diego or Miami or Tampa. And that's what helped them actually get more sales, because they got the beach ornaments to the right place. Again, pure science."

HEIGHTENED DEMAND RESETS PROMOTIONAL STRATEGIES

Markdown mitigation has been a common theme for this industry this year, but changes have largely been a byproduct of crushing demand, rather than better inventory management practices. That means retailers have to rethink how they prep their promotions, particularly given the upcoming holiday season.

When it comes to the approach, Agrawal had one piece of advice: reset consumers' expectations around pricing and promotion, and stop repeating deals from yesteryear.

"Guess what? Sales are good, margins are good," Agrawal said. "We're seeing and working with retailers to reset that expectation. If they're used to having everything 40 percent off at an outlet, let's do 20 percent. Let's make 40 percent the new 'Oh my god.' You got that chance and if you don't do it now, you're not going to be able to do it next year or the year after."

Only 15 percent of execs reported that they employ real-time promotion optimization with dynamic strategies based on category targets such as margin, sell-through and revenue. Of the remaining respondents,

ONE GLITCH CAN HALT A WHOLE PRODUCTION LINE, LOSING MONEY FOR EVERY MINUTE A MACHINE IS DOWN.

Coresight said that 28 percent use long-term planning focused on static promotional campaigns—meaning those that are not updated based on either SKU-level performance or external changes in consumer demand.

Twenty-seven percent plan on a short-term, or weekly, basis with limited long-term clarity. Nearly one-third (31 percent) focus on medium-term, usually monthly, planning strategies yet have no strategy for promotion optimization.

"Merchants are often very focused on their plan, their day-to-day or their week-to-week, but are not understanding of the product lifecycle, that this is a 12-week game, it's a 10-week game, and how to actually maximize the promotions throughout that lifecycle. Retailers are leaving a lot of money on the table," said Agrawal.

RETAILERS PREFER GUT FEEL OR EXCEL TO MACHINE LEARNING

When it comes to forecasting, there's still plenty of room for improvement. Like many areas that need improvement in retail, much can be done on the technology front to enact change, but organizations are typically slow to adopt new solutions given the cost and time involved in making changes.

According to the report, only 17 percent of surveyed retail execs indicated they use more advanced forecasting techniques such as real-time machine learning-powered models. The highest percentage (37 percent) use Excel-based forecasting to calculate formulas, while 26 percent use statistical models such as time-series forecasting. Another 20 percent, somehow, still use manual "gut-based" forecasting models.

Coresight estimates that advanced demand forecasting could measure at 90 percent or greater accuracy, making it even more jarring that so few retailers leverage the technology. On top of that, the Covid-19 pandemic showed that using the prior year as a base model to make future projections was sorely outdated, according to Agrawal.

"Nobody predicted Covid, but when you use AI and ML models—we have 15,000 models running with different stores, different SKU counts, all of that—and actually pinpoint the best way to predict what will happen in the future based on the recency of what's happening with that SKU, that's proven incredibly accurate for our clients," Agrawal said. "The challenge, though, is that machine learning is still machines. You actually have all of this data and algorithms being computed, and now you have a result, so you're not actually understanding which model is being used at any given point. It takes retailers that slight adjustment of, 'Oh, I've got to trust it to get to the next level.'"

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CEO Priorities: The Supply Chain

A NEW SURVEY OF 199 CEOS AND SENIOR EXECUTIVES UNCOVERED WHERE THEY WANT TO IMPROVE THEIR SUPPLY CHAINS.

GLENN TAYLOR

In today's gridlocked supply chain, characterized by congested ports, container shortages, Covid-19 outbreaks and rising costs, supply chain CEOs are pointing to two areas of concern for the immediate term.

Of the 199 CEOs and senior business executives surveyed across supply-chain-intensive industries by Gartner, 17 percent see cost optimization as the No. 1 issue that chief supply chain officers (CSCOs) should prioritize, running neck-and-neck with 16 percent of execs who cite supply-chain resilience as their top issue.

As importers seek to get back to a level of normalcy, CSCOs more than likely will have to master a balancing act to ensure that supply chains continue to operate efficiently.

Gartner's view of "cost optimization" does not solely mean cost cutting but instead, optimizing the overall outcomes derived by the business, according to Thomas O'Connor, senior director analyst with the firm's supply chain practice.

O'Connor pointed out that cost optimization largely manifests in three forms: operating for cash where expedient spending reductions are made that improve cash flow; optimizing network performance, typically via organizational alignment; or enabling profitable growth.

He highlighted that the retailers and brands looking to operate for cash can look to the example of The Home Depot, which contracted its own container ship in June to support inbound sea freight to the U.S. and unlock increased cost and capacity certainty.

Optimizing costs takes into account a business' risk and growth requirements, thereby creating a link to supply chain resilience. Gartner defines resilience as the ability to adapt to structural changes by modifying supply chain strategies, products and technologies.

"Gartner survey data identifies that 87 percent of supply chains are planning to invest to increase supply chain resilience by 2022," said O'Connor. "Couple this with the various cost pressures being experienced by businesses today such as raw materials price inflation and freight capacity challenges and it becomes that cost optimization and resilience initiatives are not an either/or proposition. Both must be prioritized."

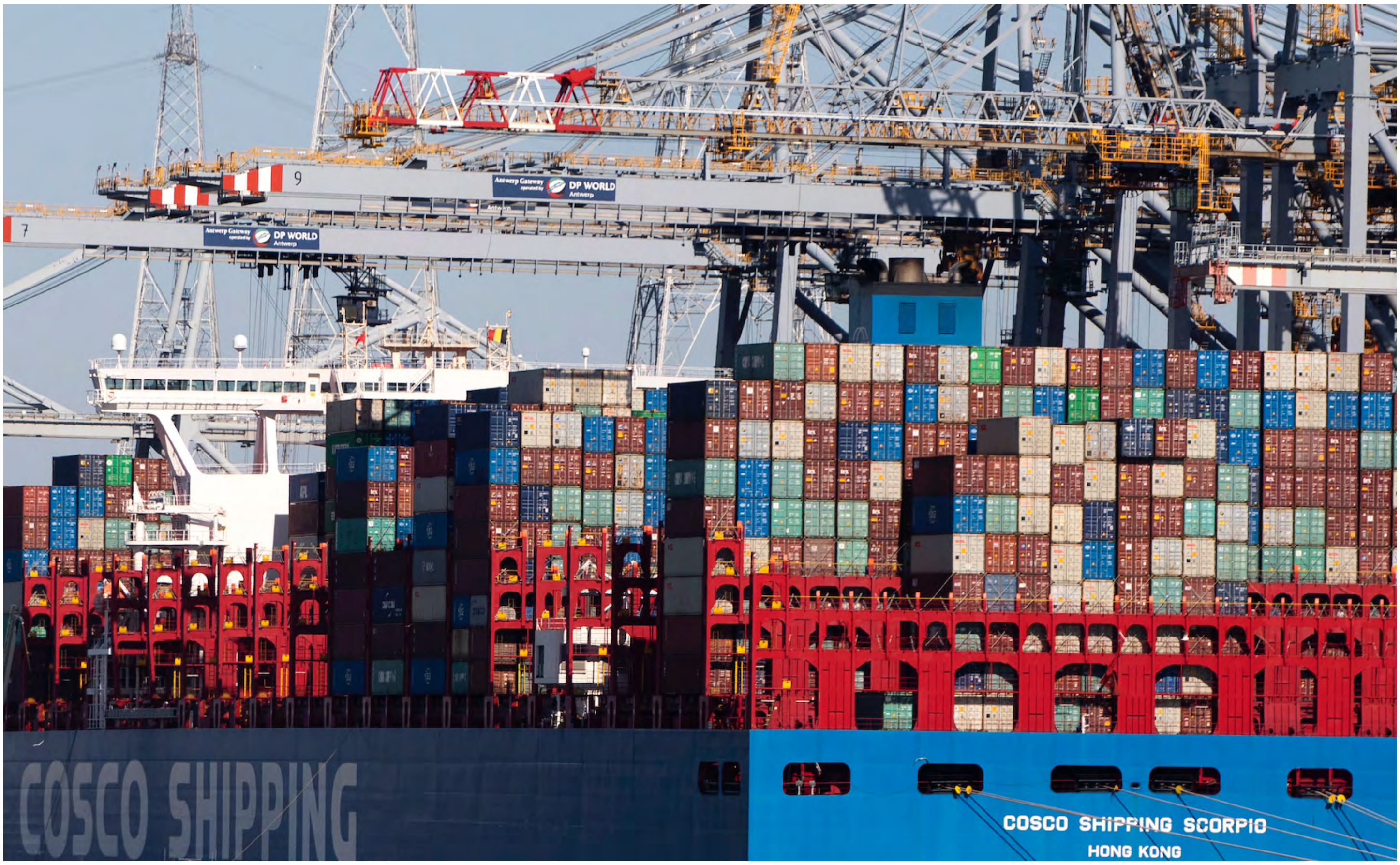
To balance the top two priorities, companies must first develop a more detailed picture of their upstream supply chains, he said. This means mapping the supply base beyond Tier 1 suppliers as such that they clearly understand their Tier 2 and Tier 3 suppliers, their potential service and costs risks, as well as associated price pressures.

These companies can also leverage real-time data to sense changes in their supply and demand bases, which integrates into a

9.1%

Increase in retail e-commerce sales in Q2 2021 vs. Q2 2020

Source: US Census Bureau



AS SUPPLY CHAIN ISSUES MOUNT, THE CSCO HAS PLAYED A BIGGER ROLE IN THE C-SUITE.

centralized decision-making tool such as a control tower. Advanced technologies like AI and machine learning can derive insights from this data and support supply chain response to ensure both the resilience of operations and optimized costs.

Brands also must rethink their existing operating models, O'Connor said.

"For example, use automation to support cost-effective nearshoring of manufacturing operations or capitalize on regional capabilities and the strengths of partners and subsidiaries by creating a geographically segmented approach to supply and demand," he told Sourcing Journal.

As CSCOs navigate the lingering effects of the Covid-19 pandemic, they also must prepare for the growth agenda the CEOs have in mind for the future, Gartner warns.

In fact, the survey, conducted from July 2020 through December 2020, showed that 60 percent of CEOs expect an economic boom to start by year-end 2022.

With that in mind, CSCOs will face ongoing challenges, namely when it comes to the balance of supply and demand in different parts of the world, which O'Connor described as "non-linear."

"Varying approaches by geography will be required with some regions with high Covid cases and low immunization rates needing to prioritize business continuity," O'Connor said, "while others that are more rapidly emerging from the pandemic, such as the U.S. and U.K., strive for commercial opportunity and growth while remaining cautious and aware of the potential for markets to backslide due to new variants of the disease."

DIGITIZATION IS THE MOST COMMON THEME

The majority of the respondents surveyed say they want to focus on technology as they adapt to current industry concerns, with 80 percent planning to increase year-on-year investments in digital capabilities.

But the prioritization of digital appears to be shifting from a general, undefined ambition for digital business transformation toward more targeted initiatives. It is now on the CSCOs to confirm their CEOs' intended meaning of digital business within the context of their own organization or industry.

Survey respondents' most popular areas for digital business investments were e-commerce (16 percent), customer interactions (9 percent), data analytics (9 percent) and customer experience (7 percent).

CEOs anticipate the pandemic will have a lasting impact on their businesses, with over two-thirds of survey participants indicating they will use the pandemic as an opportunity to focus on redesigning the business. Further, 79 percent of CEOs expect to see significant and enduring behavioral changes in society, the organization and individuals that are a direct result of the pandemic.

TOP SUPPLY CHAIN OFFICERS HAVE MORE SAY IN C-SUITE

A major positive going forward is that despite the issues plaguing the supply chain, the role of the CSCO has played a bigger role in the C-suite in recent years.

O'Connor pointed out that 56 percent of surveyed supply chain executives in Gartner's annual Future of Supply Chain Survey identified that they believe their CEOs and executive management see the supply chain as an equally important part of their business success to sales and marketing or product development.

"This is a real positive for CEO-CSCO communication," said O'Connor. "The challenges of the last 18 months have further reinforced the critical role of supply chain in business with growing references to supply chain and logistics in listed companies' earnings calls and similar forums where CEOs discuss their organizations."

And while many of these companies may not be viewed publicly as making decisions that are in the best interest of everyone involved, 43 percent of CEOs from supply-chain driven industries stated that they see their organization's purpose as going beyond shareholder needs, which came as a pleasant surprise to O'Connor.

"Yes, shareholder needs are critical, but they are also incorporating the needs of employees, customers, suppliers and other stakeholders," said O'Connor. "Hopefully this will be an area where we see CEOs continue to expand their view of organizational purpose into the future."

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