

FEATURE STORY - PAGE 8

From T-Shirts To Face Masks: **How Hanes Rallied Against A Global PPE Shortage** **JUNE 2020**

NEWS AND TRENDS - PAGE 13

Fraudster derails \$7M PPE order from Louisiana's state government

DEEP DIVE - PAGE 22

Companies take up PPE manufacturing to aid pandemic recovery

PYMNTS.com

P P E SUPPLY CHAIN

REPORT



What's Inside

A look at why hospital buyers are exploring new ways to purchase PPE and how a global shortage of such equipment prompted 3D printer owners and manufacturers of all sizes to produce these much-needed items

Feature Story

An interview with Matt Hall, chief communications officer and vice president of apparel company Hanes, on how it got its factories back online and shifted to produce millions of face covering for the U.S. Department of Health and Human Services

News & Trends

Recent PPE supply chain headlines, including IBM's launch of a procurement platform to help hospitals vet and transact with new PPE sellers and Citi Commercial Bank's collaborative efforts to facilitate rapid PPE purchasing from China

Deep Dive

An in-depth examination of how businesses have adapted their workflows to focus on creating essential medical equipment to help fill hospitals' needs

About

Information on PYMNTS.com and American Express

Acknowledgment

The PPE Supply Chain Report is done in collaboration with American Express, and PYMNTS is grateful for the company's support and insight. <u>PYMNTS.com</u> retains full editorial control over the following findings, methodology and data analysis.

WHAT'S INSIDE

The COVID-19 pandemic has sent governments and hospitals scrambling to buy enough personal protective equipment (PPE) - face masks and shields, gloves, gowns and similar products — to keep their healthcare workers from contracting the virus or spreading it when helping patients. Grocery store staff and other non-medical essential workers also need such items because their employment conditions put them at high risk of exposure, and consumers must obtain protective face coverings to prevent the virus from circulating among the general populace. The sudden worldwide spike in demand for such items created steep competition that was only exacerbated by countries looking to obtain them in large quantities.

Access to supply has tightened because of other issues as well, such as countries <u>curbing</u> PPE exports to safeguard their supplies. This cuts others off from their traditional PPE sources, pushing them to find alternatives to keep their medical professionals safe. Sixty-eight countries limited such exports by early April, leaving international customers without supplies and in need of new vendor partnerships.

Beating the PPE shortage requires a ramp up in manufacturing, with the World Health Organization (WHO) projecting in March that global production needed to rise by 40 percent to sate demand. The need to generate more equipment has spurred many non-medical companies and altruistic individuals to start creating masks, goggles and other gear. Manufacturers are also repurposing their industrial equipment, reviving decommissioned

factories and <u>converting</u> their existing layouts and workflows to create new items. Even individuals who own 3D printers and laser cutters have been <u>volunteering</u> to <u>produce</u> and donate items like face shields.

Large and small operations alike have been rallying to help fight the shortage and health-care buyers have been getting creative as well. They have branched beyond their traditional procurement approaches to tap options like eCommerce marketplaces to accrue essential PPE items wherever they can.

AROUND THE PPE SUPPLY CHAIN LANDSCAPE

The need to rapidly expand PPE production has given new <u>purpose</u> to 3D printing, with companies in the space <u>testing</u> designs that customers could use to print medical items like nasal swabs. Vendors have said the technology is well-suited to shifting operations because changing what 3D printers make does not require major workflow or heavy equipment adjustments, as is the case for large-scale manufacturers. This could point to a new niche for 3D printers, according to Michael Papish, vice president of marketing for 3D printer vendor Markforged, with the technology proving itself useful in supporting supply chain flexibility.

Manufacturers are not the only companies learning new ways to operate as hospital buyers are also changing their procurement approaches. Healthcare providers are no longer relying only on long-term vendors to get the items they need but are instead expanding

to buy through online business-to-business (B2B) marketplaces, availing themselves of all procurement options. This has produced a surge in traffic on some sites, with one B2B marketplace reporting that it received 15,319 requests for ventilators for lease between March 1 and April 17, compared to only 28 during January and February. Convenient marketplace experiences may also encourage healthcare buyers to return to these providers to meet procurement needs during more normal circumstances.

Healthcare buyers are also being given new options when purchasing, this time for finding and evaluating companies that have just started producing PPE. These buyers need to filter reliable vendors from fraudsters when entering into deals with new vendor companies so they do not lose money to criminals or count on orders unknowingly placed with bad actors. Technology company IBM recently deployed a procurement platform to help alleviate this problem by facilitating connections and purchasing between buyers and vetted suppliers.

For more on these and other PPE supply chain development headlines, read the report's News and Trends section (p. 13).

HOW APPAREL COMPANIES ARE ADAPTING TO FIGHT A GLOBAL PPE SHORTAGE

Major apparel brands have pivoted from making T-shirts to creating face masks to help meet PPE needs during the pandemic. That

transition requires companies to rally their supply chains and factories to get operations up and running and suited for different types of products — a process that is markedly easier when the new products use the same supplies required for typical operations. In this month's Feature Story (p. 8) Matt Hall, chief communications officer and vice president at Hanes, explains how a domestic supply chain for raw ingredients, strategically located factories and special government negotiations has helped the company create and deliver more than 200 million face coverings, and why the brand expects cloth masks to become part of its standard product mix.

DEEP DIVE: MANUFACTURERS SWITCH TO PPE PRODUCTION TO BOLSTER PUBLIC HEALTH RESPONSE

Critical PPE shortages create risks for health-care workers and their patients while also hampering response efforts, but manufacturers are seeking to mitigate these problems. Businesses that normally produce items like backpacks and clothes are now transforming their operations to create face shields and other high-demand gear — a process that has required them to develop new designs, obtain new insurance coverage and create social distancing-appropriate workstations. This month's Deep Dive (p. 22) examines the status of the United States' PPE shortages and how businesses are strategizing for smooth pivots into PPE production.

FIVE FAST FACTS

85%

Share of businesses anticipating larger budgets for "digital experiences" next year

5K

Number of face shields one entrepreneur made and donated within 30 days

15.3K

Number of ventilator rental requests one B2B equipment marketplace received from March 1 to April 17

3.3B

Number of disposable face masks Canada needs for the next 12 months

\$98.3B

Expected global PPE spending by 2027

Executive INSIGHT

Healthcare providers have not been able to fulfill their PPE needs through their traditional procurement sources and methods, resulting in many seeking such gear through B2B marketplaces. How do you anticipate these alternative purchasing methods to become part of business as usual going forward?

"In the last few months, we've seen companies focus on selling goods and buying inventory online. As a result, digital and integrated payments, including credit cards, are gaining more traction in the B2B space. With so many working virtually, access to send and receive traditional payments like paper checks is limited and more complicated from home. Digital payments help sellers get paid faster and buyers [to] make convenient payments while benefiting from working capital and cash flow management.

We are also seeing companies seek out reliable new sources of PPE — and it is a trend we expect to continue as companies begin to reopen. Since we work with both buyers and sellers, we have been connecting companies with our extensive healthcare supplier base and helping them discover new nontraditional sources, from retailers to technology companies, who are pivoting their supply chains to meet critical PPE needs."

R.J. ANCONA

vice president and general manager, National Client Group – B2B, <u>American Express</u>

FEATURE STORY



From T-Shirts To Face Masks: How Hanes Rallied Against A Global PPE Shortage

The U.S. has been confronting a shortage of face coverings and other PPE items that are critical to protecting public health and paving the way for a safe economic recovery. Medical professionals and the public alike need masks to protect themselves from COVID-19 and to prevent them from unwittingly acting as carriers and spreading the virus.

The public's requirements for face coverings must be met while ensuring that medical-grade masks remain accessible to the healthcare providers who need them most, however, and the U.S. Department of Health and Human Services (HHS) is thus working with nontraditional

partners, like clothing brand Hanes, to drive increased production of non-medical PPE.

"HHS turned to us and said, 'We have a need and desire to acquire a large quantity of face coverings that we want to get out to the general public because we think if the general public wears them, it will help cut the spread of the pandemic," Matt Hall, Hanes' chief communications officer and vice president, explained in a recent interview with PYMNTS. "It will also take pressure off of [consumer] demand for technical PPE that medical professionals need, [like] the N95 [respirator] masks."

Hanes has pivoted its production processes from apparel as it rapidly works to fulfill an HHS order for 320 million face coverings. The company has already made nearly two-thirds of the order, which it delivers to federal officials at designated sites. Hanes ships the masks via air freight — a method that is more expensive but faster than typical overseas deliveries - and federal officials distribute them to areas where they are most needed. Virginia National Guard members recently distributed care packages that included the face coverings in Henrico County during Memorial Day weekend, for example.

Such shipments are eagerly received, but getting to this point required strategy and effort. Hanes had to take several steps to enable this production shift, including leveraging local supply chains to restart temporarily shuttered factories and rearranging facilities to make it safe for employees to return to work.

CONVERTING OPERATIONS

Certain industries are better fits for creating specific PPE products, and the ease with which they can transition depends on two factors: whether their traditional supply chains have been spared from disruption and whether those supply chains provide all the components needed for constructing the new products. Some apparel companies can be well-suited to making masks because they already know where to source the materials

for such products. Hanes has been creating masks using the same cloth, elastics and fabric treatments that go into its standard clothing items, for example.

"The reason we could turn on a dime and make the quantities that were needed is that it was pretty much the same material flow," Hall explained. "We're making all-cotton, three-ply masks using cotton fabric we'd use in some of our other underwear or T-shirt manufacturing, just in different thickness. ... We were churning out masks in startup quantities within a week and a half of the initial meeting with the HHS I can't tell you how fast that is. The only way that was possible was [by] being able to use our existing supply chain materials to make a different kind of product."

Hanes was also able to shift its operations quickly because it controls most of the facilities it uses to make its products, Hall said. That is not always the case for other apparel companies.

"We own most of our manufacturing, which gave us leg up in being able to turnaround quickly and fulfill this huge order," he said.

Smaller players often cannot afford to own their factories and instead tend to outsource manufacturing to independent contractors, Hall said. These small-scale clothing brands could find it difficult to shift to producing PPE if their contractors had ceased operations during the



pandemic and were not yet ready to resume them. A significant portion of companies that produce clothing, Hanes included, closed factories in response to a drop in demand for such items during the public health outbreak and stay-at-home orders. Hanes owning its own factories was the first step toward it being able to restart production.

RESTORING MANUFACTURING

Hanes still faced challenges in preparing for PPE manufacturing, however. The company normally turns its yarn into fabric at factories

in Latin America and Asia and wanted to make the masks at its plants in the Dominican Republic, El Salvador and Honduras to enable faster U.S. delivery. It had shut down its Latin American factories earlier this year due to decreased consumer demand and was then unable to reopen them because government orders have required that they stay closed to reduce COVID-19's spread. Hanes' officials had to solicit exemptions to begin production.

"We had to get special dispensation from all those governments to open up manufacturing to make those face masks," Hall said. "Part of the agreement for [reopening was] that we were going to provide face masks to those governments as well, so all countries would benefit from restarting this manufacturing."

The brand also needed to keep workers safe when bringing them back to the factories. That included making sure employees could maintain enough distance between workstations to minimize the risk of catching or spreading the virus, which necessitated running factories at lower-than-normal capacities. It is not possible to completely remove the health risks associated with returning to public spaces, however, so the company wanted to ensure no employees felt forced to return. It therefore asked — but did not require — workers to participate in the reopening.

Hall said the company had completed approximately 200 million face coverings as of early June and has expanded its production efforts to sate high demand from businesses that must provide workforces with protective equipment so they can safely reopen.

THE FUTURE OF RETAIL

Hanes is not only selling face coverings to governments and businesses, either. The company found that consumers are eager to buy the items online, where it has begun selling 10-packs, and believes the protective gear could become part of its standard product

mix. Consumer demand is unlikely to decrease anytime soon, and many shoppers may add wearing face masks to the protective steps they take during times of sickness in the future.

"Our society will be different from here on out," Hall explained. "The idea of wearing masks during flu season will be much more normal [in the U.S.], similar to what you would see in Asia and ... in the Western hemisphere."

Meeting workers' and consumers' demands for protective face coverings is critical to public health during the pandemic and is becoming crucial as businesses reopen. More consumers will enter public spaces as stay-at-home orders relax, which makes it all the more important that they can protect themselves, especially as infection rates continue to rise.

Keeping workers and customers supplied with face masks is vital to enabling a higher level of commerce to revive and help newly reopened businesses avoid outbreaks that could force them to temporarily close again. Nontraditional manufacturers that can rally their workers and pivot their production approaches to help fulfill PPE demands are thus playing a key part in keeping the public safe during the pandemic and society's shift toward a new normal.

NEWS& TRENDS

Small-scale manufacturing

3D PRINTING COMMUNITY RALLIES TO EASE MEDICAL MANUFACTURING DEMAND

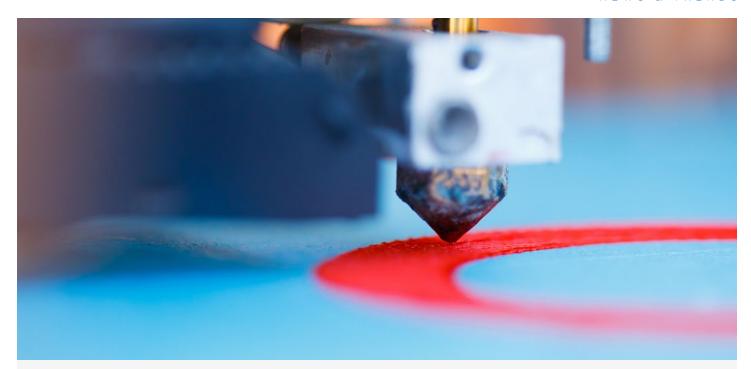
The COVID-19 pandemic has generated huge demand for PPE that outstrips available supply, creating challenges for hospitals trying to protect front-line workers. Help was offered from various channels, as several major apparel and vehicle manufacturers - including Neiman Marcus and General Motors - announced plans to produce the items in their factories. These industry sectors watched customer demand for their goods decline as retailers closed to comply with public safety guidelines and consumers curbed discretionary spending during the resultant economic downturn, factors that may have contributed to their eagerness to retool their spare operating capacity to create PPE.

Those kinds of well-intentioned efforts took time to bear fruit, however, especially because companies first had to <u>adjust</u> factory setups of large industrial equipment to make new product types, Jennifer Milne, product marketing lead at 3D-printing hardware company Formlabs, noted in an interview with PYMNTS. Formlabs manufactures and sells 3D printing systems and previously <u>partnered</u> on efforts to help clients <u>make</u> 3D-printed items like dental crowns and materials for athletic

footwear — and it now has turned its attention to PPE. Milne asserted in the interview that smaller manufacturing setups could be more fleet-footed in pivoting to help produce new items. Formlabs took its own steps to address the situation, working with healthcare professionals to identify their inventory needs and create standardized design plans its customers could use to 3D print PPE items from home to donate. The company anticipated its customer volunteers could produce 100,000 nasal swabs daily once product designs were tested and approved.

SCENT WEDGE FOUNDER SWITCHES FROM AIR FRESHENERS TO FACE SHIELDS

Individual entrepreneurs also appear to be stepping up to make and donate PPE on the side, often tapping the same equipment they use in their core operations to create essential medical supplies. Arash Malek, founder of Scent Wedge — which manufactures car air fresheners for Tesla automobiles — recently took advantage of the laser cutter he uses in his main line of business to create face shields for medical professionals, for example. He began crafting the items out of acrylic plastic, rubber bands and transparency sheets after first consulting with a local respiratory therapist to ensure the designs met necessary specifications.



Malek said he was inspired by a March trip to Italy just before it enacted a lockdown and the desperation he saw of a country in the grips of the pandemic. He began creating PPE upon his return and reportedly produced and donated approximately 5,000 face shields within 30 days. He has continued to fuel this work by accepting contributions on his website, where he also receives requests from those needing PPE donations.

CRAFTING PRESCRIPTION PROTECTIVE EYEWEAR TO SAFEGUARD DOCTORS

Small-scale PPE creation is not only being conducted by consumer volunteers and entrepreneurs working on the side — some small manufacturers are also revising their product lines to better suit the new needs introduced by the pandemic. Custom 3D-printed glasses manufacturing startup Fitz is expanding its offerings to now include protective eyewear

for healthcare workers, for example. The new product has a design similar to that of safety glasses rather than everyday-use glasses to create a better barrier against droplets or fluids. They can be made according to wearers' corrective lens prescriptions and are intended to fit comfortably under face shields. Fitz is offering the items for free to hospital workers.

Many doctors need vision correction, according to Fitz CEO Gabriel Schlumberger. The glasses are designed to serve front-line medical professionals who typically wear contacts but may wish to stop doing so to reduce how often they touch their faces. The CDC currently states that "there is no evidence to suggest contact lens wearers are more at risk for acquiring COVID-19 than eyeglass wearers," but the American Academy of Ophthalmology notes the virus could enter the body via the eyes and that contacts lens wearers tend to

touch their eyes more often. Individuals whose hands come into contact with infected droplets could contract the disease if they rub their eyes to adjust their lenses or touch their eyelids to add moistening drops without first thoroughly washing their hands.

DEMAND FOR RAPID SUPPLY CHAIN ADJUSTMENTS GIVES 3D PRINTING A **NEW CALLING**

Fitz and Formlabs were not the only companies recognizing 3D printing's potential to ease PPE inventory shortages. Massachusetts-based 3D printer seller Markforged also envisioned that the technology would play a growing role, designating a team of 20 workers to create designs that 3D printer owners could use to manufacture PPE. CEO Gregory Mark reported in March that the company had made nasal swab and face shield prototypes that met doctors' approval and that the company had submitted the items to clinical trial. The designs became ready for distribution to 3D printer owners once they passed the trials. The company reported its customers had made more than 4,400 face shields as of June and that Markforged itself could make 10,000 nasal swabs daily.

3D printers are well-suited for quickly producing different kinds of items, Mark said, unlike larger manufacturers that may need to retool heavy industrial equipment to do so. Michael Papish, Markforged's vice president of marketing, commented separately that 3D printing

may be finding its niche: The technology was once proposed as a way to create large items like "entire cars," he said, but may now be proving it is more useful when tapped to improve supply chains' flexibility. The printers can be located anywhere that needs on-site manufacturing and can help rapidly move new products from design into production.

PPE acquisition

PROCUREMENT PLATFORMS HELP **NEW PPE MANUFACTURERS REACH HEALTHCARE PROVIDERS**

Large-scale manufacturers revamping operations to get PPE production processes running may find that creating inventory is only one piece of the puzzle. These fresh entrants into the field need to find ways to connect with healthcare facilities but often lack traditional sales relationships or channels for doing so. Medical buyers also need to be able to determine which new vendors are trustworthy and which are fraudsters.

Third parties have sought to extend that connectivity, and technology company IBM recently launched a platform called Rapid Supplier Connect (RSC) to bridge the gap. Healthcare buyers can use the platform to discover and purchase from pre-vetted suppliers, alleviating their need to undergo the work of hunting down and trying to verify sellers. RSC is also intended to offer real-time inventory



status information, and IBM is providing buyers and suppliers with free access until the end of August.

FRAUDSTER SEEKS TO ABUSE LOUISIANA'S PPE PURCHASING EFFORTS

Recent developments have not all been helpful, however. Some criminals are all too willing to defraud emergency procurement efforts, making strong supplier vetting critical. State governments have been working to quickly but carefully secure critical goods but have had purchase orders fall through due to fraud — which costs precious time and money. Louisiana recently saw a \$7 million order for protective gowns, masks and chemical suits go unfulfilled, for example. The items were intended for front-line medical workers.

Louisiana's state government had contracted with a vendor that had a long history of providing such offerings. That is normally a positive sign, because longevity indicates legitimacy as well as a track record of meeting obligations something not found when a company springs up overnight to take advantage of a buying surge. One of its suppliers failed, however, and was arrested within weeks on allegations that the supplier made false claims about his ability to acquire certain items. The collapse of this deal set back efforts to supply crisis workers, but taxpayers' \$7 million was not stolen because the governor's office only pays for goods after receiving them. Mike Steele, communications director for the governor's office of homeland security and emergency preparedness, said the agency also makes sure to leverage a wide array of suppliers with different delivery timelines so it can be resilient should orders be impacted by problems.

B2B MARKETPLACE EXPERIENCES 32,000 PERCENT RISE IN VENTILATOR RENTAL, LEASE REQUESTS

Hospitals are also making procurement efforts and taking advantage of all options available

to them in their quests to secure PPE. That means expanding beyond their traditional purchasing methods, which tend to entail buying from vendors with which they have long-established relationships, and leveraging B2B marketplaces.

Kwipped.com is one such marketplace offering medical equipment and other items for lease or rental, and it has witnessed major spikes in traffic since the COVID-19 outbreak began. It reported a 32,000 percent rise in the number of requests it received for ventilators from March 1 to April 17, for example, compared to the amount seen in January and February. It also reported 15,319 ventilator requests made during that period. Kwipped.com CEO Robert Preville suggested that healthcare buyers may discover the benefits of adding marketplaces to their menu of procurement methods as they allow buyers to quickly view detailed product information and access a range of suppliers - something healthcare buyers may not have gotten through traditional purchasing channels.

ACCELERATING CROSS-BORDER **PAYMENTS INFORMATION TO SPEED HEALTHCARE SUPPLY DEALS**

Healthcare providers often obtain medical equipment through international purchases, but payments must be sent quickly because suppliers typically insist on receiving compensation before shipping ordered goods. These

are desperately needed supplies, too, meaning that medical professionals can put the items to use saving lives as soon as they are received. Cross-border deals can take up to two days to complete, however.

Financial services companies are thus seeking to get payments delivered within hours, Thor Perplies, senior vice president and treasury sales officer at Citi Commercial Bank, told PYMNTS' Karen Webster in an interview. The FI has collaborated with the Boston Foundation, a team of volunteers that mobilized to help local hospitals buy from a medical supply distributor in China, and payment facilitator Flywire to support deals between U.S. buyers and Chinese PPE vendors. Perplies recommended companies work to understand vendors' countries' requirements - such as how payment files need to be formatted - and use automation to send transaction-related information in real time to further hasten deals. He also noted the importance of providing clear tracking on payment processing fees as suppliers are unlikely to provide goods if they believe they have been underpaid. They need to be able to quickly view where foreign exchange fees and other charges have been deducted to clear up confusions, strategies that will also be useful in keeping commerce fast once the global health crisis ends.



Reexamining supplier relationships

3M WILL PAY VENDORS MORE SLOWLY UNDER ADJUSTED CONTRACTS

Major businesses also appear to be rethinking how they transact with long-term suppliers, with manufacturing company 3M recently announcing it would start paying vendors more slowly so it could keep more cash on hand. The plan was decided prior to the pandemic rather than in response to it, the company said, but the new financial strains did not deter 3M from following through. Any "purchase orders, contract renewals or new contracts" will now have vendors wait an additional month to get paid, as the company will be taking 90 days instead of 60 to compensate its suppliers. It has also said it will not increase its payments to make up for any cash flow gaps caused by the shift and has offered to pay suppliers within 30

days if vendors accepted 2 percent price cuts. 3M told suppliers in a letter that its switch to 90-day terms is in keeping with "prevailing market trends and industry best practices."

Institute for Supply Chain Management CEO Tom Derry commented that shifting to slower payment timelines is often a go-to move for corporate buyers during recessions. Buyers do this to help them conserve their own funds, he explained, but the result can be very painful for small suppliers. Longer payment terms often impose financial burdens on them and can force them to take on debt to make up for the cash flow strains.

CLOTHING RETAILERS DECIDE WHETHER TO UPHOLD EXISTING PAYMENT DEALS WITH SUPPLIERS

Apparel companies have faced similar decisions about how to treat their suppliers, and many have chosen to leverage "force majeure"

contract clauses to guit payment obligations. Edinburgh Woollen Mill, Matlan and Primark reportedly cancelled and suspended payments and shipments of orders during the early days of the pandemic to reduce their losses, with Primark saying it did so to avoid acquiring inventory it would not be able to sell. These and many other international apparel companies source clothing from garment factories in Bangladesh, and denying payments has hit such suppliers hard. As of early April, the three clothing brands' cancellations included a collective £1.3 billion (\$1.6 billion USD) of items they had ordered before the pandemic that were already made for them or were in the process of being created when the economic downturn began, according to the Bangladesh Garment Manufacturers Exporters Association (BGMEA). Such cancellations and refusals to pay reportedly resulted in the furloughs or layoffs of more than 1 million Bangladeshi garment workers as of early April because many factories could not afford to pay them.

Other retailers, like Zara and H&M, <u>said</u> in April they would fulfill their existing business deals with their suppliers and pay for the orders they had placed. Athleticwear retailer Under Armour also made headlines when it <u>announced</u> in May that it would continue to compensate its vendors and would not abandon the terms to which it had previously agreed. This move came as Adidas — a key sports apparel

competitor — made a similar announcement, <u>asserting</u> that it would "pay for all orders completed or in process."

eCommerce gains prominence

STUDY FINDS 71 PERCENT OF B2B ORGANIZATIONS BELIEVE THEY OFFER UNSATISFYING DIGITAL EXPERIENCES

Merchants are also looking at the other half of their transaction streams and seem to be reexamining how their customers order and purchase from them. A March survey of B2B sellers' eCommerce, IT and marketing executives by content management and digital commerce platform provider Episerver found that many wanted to improve their digital sales approaches during the next year. Alex Atzberger, the company's CEO, attributed this finding to the pandemic's impact: Companies now find they need to be able to digitally reach customers to continue conducting business, he explained, and many regard selling through their own channels to be advantageous over working with third-party marketplaces or retailers.

Forty-one percent of the 600 survey respondents appeared to agree, citing direct-to-customer eCommerce as the "most significant opportunity for their business in the next year." Seventy-one percent believed their companies had far to go, however, stating that their current

digital offerings failed to satisfy customers' needs and expectations. Eighty-five percent of respondents anticipated that their budgets for "digital experiences" would grow in the coming year, however, even as the economic downturn forces organizations to more carefully consider their investments.

WHY THE PANDEMIC MAY PROMPT eTAILERS TO EXPAND LOGISTICS CENTERS, SHORTEN SUPPLY CHAINS

Some sellers are taking fresh looks at the logistics involved in fulfilling the rising demand for online ordering. eCommerce purchasing ramped up during the pandemic as consumers abided by stay-at-home orders and many nonessential businesses closed, and eTailers taking lessons from the crisis seem to be working to ensure their supply chains can better

endure any future upsets. This is likely to result in sellers seeking partnerships with manufacturers that are geographically closer to their customer bases, Chris Caton, senior vice president and head of global strategy and analytics at logistics facilities operator Prologis, told PYMNTS' Karen Webster in an April interview. The thinking is that producing goods closer to intended markets reduces the number of steps in supply chains, thus presenting fewer opportunities for disruption. U.S. companies working with manufacturers in Mexico would see fewer steps involved in shipping and receiving than if they collaborate with those located in China, for example.



DEEP DIVE

How Manufacturers Are Transitioning To Counter PPE Shortages

Fighting a pandemic takes clear communication, strategic organization and responsive action. It also requires supplies, which has been a major worldwide stumbling block.

The U.S. has been scrambling to secure enough face masks, goggles, plastic gowns and other PPE to keep front-line workers safe. This gear creates reliable barriers between individuals and prevents exposure to exhalation droplets that could carry the COVID-19 virus, making it essential for healthcare professionals who come in close contact with patients. Everyone from surgeons and nurses to EMTs and home health aides as well as those who do not work directly with patients but could be exposed when sanitizing hospital spaces, speaking with patients' family members and performing other critical tasks need to keep themselves healthy and ensure they do not unwittingly catch and spread the virus.

PPE shortages have been severe, with governments vying for items their healthcare workers need amid disrupted manufacturing and supply chains. China typically produces more than half the world's face mask supply, but the country largely ceased exporting these items when the pandemic hit. PPE inventory

strains have also resulted in the U.S. government <u>pitting</u> individual states into bidding wars against it and each other to obtain these critical items, with some physicians <u>reporting</u> the federal government even seized some hospitals' PPF deliveries

High need combined with global shortages have caused prices to spike, leading WHO to report that prices of N95 respirators rose three-fold and surgical masks rose six-fold as of early March. Demand remains strong months later as well, with global PPE spending expected to grow at a compound annual growth rate (CAGR) of 8.5 percent between 2020 and 2027, reaching \$98.27 billion. The best way to reduce such hikes and sate demand may be to create more products, with WHO predicting in March that PPE manufacturing would need to ramp up by 40 percent to meet the world's needs.

Countries worldwide are struggling to obtain enough protective gear, even in June, as one recent <u>survey</u> projects that Canada is not on track to obtain the 3.3 billion disposable face masks it is expected to need over the next 12 months, for example — or the 750 million it would require for just the next four. This month's Deep Dive examines how U.S. companies are

hearing this call and revising their manufacturing approaches to bolster supplies of these essential items.

MANUFACTURERS PIVOT INTO PPE

Getting protective supplies to those who need it and ensuring PPE inventory quantities are sufficient to curb the virus's spread are each critical to public health. This will also require significant effort, with WHO projecting in March that it would take 89 million medical masks per month to assist pandemic response efforts around the globe.

The U.S. has traditionally sourced its PPE from abroad, but export limitations in supplier countries have impeded this process. Domestic healthcare facilities are strongly feeling the resultant shortages, with one <u>survey</u> of staff at 978 healthcare facilities across the country finding 36 percent had run out of face shields by April 8. It noted stark results between states, too, with 51 percent of Massachusetts facilities reporting they had, at most, one week's worth of N95 masks, 58 percent of Floridian respondents saying they had entirely run out of



booties and 57 percent of Texan facilities having no more than seven days' worth of gloves.

Some U.S. companies have sought to plug domestic shortages by expanding into PPE manufacturing. These companies had to first identify which items were most aligned with their existing production capabilities, then reconfigure their production processes to match these products. Manufacturers that already relied on U.S. sources for raw materials have been especially well-positioned to make such transitions because they can avoid major international supply chain and logistics disruptions and thus quickly shift their operations to create PPE.

Maine-based manufacturer Flowfold, which creates sailcloth backpacks and similar products with items from domestic suppliers, is one small company that has converted its operations to create face shields for healthcare providers. It was able to use the same machinery it normally leverages for cutting heavy-duty sailcloth to instead cut plastic for face shields, but doing so required several major changes, like reconfiguring its factory with appropriately spaced and disinfected workstations as well as giving staff equipment to protect them from contracting or spreading the virus. Flowfold also had to get a new type of insurance to protect itself from liabilities associated with making PPE, according to chief operating

officer James Morin, and consulted healthcare workers to learn what went into creating face shields that fit well.

Individual consumers with 3D printers have also <u>sought</u> to pitch in and create equipment, using their home devices to print various items, including nasal swabs for testing kits and protective hard plastic masks. Some have been creating ventilator splitters, which enable a single ventilator to serve more patients, thus easing demand on highly sought-after machines.

Achieving sufficient PPE and medical device supply will be critical to containing the COVID-19 pandemic and enabling the world's safe return to more normal economic activities. Companies' efforts to pivot their operations and create additional products are vital to public health and reliable restoration of commercial activities. Consumers are unlikely to make many unnecessary visits to businesses that are reopening until they believe it is safe to be in public spaces, after all. Creating PPE will thus go a long way toward saving lives and reducing the timeline for economic recovery. It is not too late for more companies to join this effort, and the experiences of those that have already pivoted into PPE production can help guide their transitions.

ABOUT

PYMNTS.com

<u>PYMNTS.com</u> is where the best minds and the best content meet on the web to learn about "What's Next" in payments and commerce. Our interactive platform is reinventing the way companies in payments share relevant information about the initiatives that make news and shape the future of this dynamic sector. Our data and analytics team includes economists, data scientists and industry analysts who work with companies to measure and quantify the innovations at the cutting edge of this new world.



American Express is a globally integrated payments company, providing customers with access to products, insights and experiences that enrich lives and build business success. Learn more at americanexpress.com, and connect with us on Facebook, Instagram, LinkedIn, Twitter, and YouTube.

Key links to products, services and corporate responsibility information: charge and credit cards, B2B supplier center, business credit cards, travel services, gift cards, prepaid cards, merchant services, Accertify, InAuth, corporate card, business travel, and corporate responsibility.

We are interested in your feedback on this report. If you have questions, comments or would like to subscribe to this report, please email us at feedback@pymnts.com.

DISCLAIMER

The B2B Payments: COVID-19 Impact Report may be updated periodically. While reasonable efforts are made to keep the content accurate and up to date, PYMNTS.COM: MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, REGARDING THE CORRECTNESS, ACCURACY, COMPLETENESS, ADEQUACY, OR RELIABILITY OF OR THE USE OF OR RESULTS THAT MAY BE GENERATED FROM THE USE OF THE INFORMATION OR THAT THE CONTENT WILL SATISFY YOUR REQUIREMENTS OR EXPECTATIONS. THE CONTENT IS PROVIDED "AS IS" AND ON AN "AS AVAILABLE" BASIS. YOU EXPRESSLY AGREE THAT YOUR USE OF THE CONTENT IS AT YOUR SOLE RISK. PYMNTS. COM SHALL HAVE NO LIABILITY FOR ANY INTERRUPTIONS IN THE CONTENT THAT IS PROVIDED AND DISCLAIMS ALL WARRANTIES WITH REGARD TO THE CONTENT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT AND TITLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF CERTAIN WARRANTIES, AND, IN SUCH CASES, THE STATED EXCLUSIONS DO NOT APPLY. PYMNTS.COM RESERVES THE RIGHT AND SHOULD NOT BE LIABLE SHOULD IT EXERCISE ITS RIGHT TO MODIFY, INTERRUPT, OR DISCONTINUE THE AVAILABILITY OF THE CONTENT OR ANY COMPONENT OF IT WITH OR WITHOUT NOTICE.

PYMNTS.COM SHALL NOT BE LIABLE FOR ANY DAMAGES WHATSOEVER, AND, IN PARTICULAR, SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, OR DAMAGES FOR LOST PROFITS, LOSS OF REVENUE, OR LOSS OF USE, ARISING OUT OF OR RELATED TO THE CONTENT, WHETHER SUCH DAMAGES ARISE IN CONTRACT, NEGLIGENCE, TORT, UNDER STATUTE, IN EQUITY, AT LAW, OR OTHERWISE, EVEN IF PYMNTS.COM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

SOME JURISDICTIONS DO NOT ALLOW FOR THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, AND IN SUCH CASES SOME OF THE ABOVE LIMITATIONS DO NOT APPLY. THE ABOVE DISCLAIMERS AND LIMITATION'S ARE PROVIDED BY PYMNTS.COM AND ITS PARENTS, AFFILIATED AND RELATED COMPANIES, CONTRACTORS, AND SPONSORS, AND EACH OF ITS RESPECTIVE DIRECTORS, OFFICERS, MEMBERS, EMPLOYEES, AGENTS, CONTENT COMPONENT PROVIDERS, LICENSORS, AND ADVISERS.

Components of the content original to and the compilation produced by PYMNTS.COM is the property of PYMNTS.COM and cannot be reproduced without its prior written permission.