

THE DC VELOCITY Q&A

The New (Ab)Normal

How has the pandemic affected businesses in general and supply chains in particular? Dr. Yossi Sheffi, a professor at MIT, offers some answers in his latest book.



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It's been nearly 10 months since Covid-19 slammed into the global economy like a wrecking ball. And while businesses have learned to manage, many will endure lasting effects that may take years to resolve. In the meantime, all of us—businesses and consumers alike—are yearning for things to get back to normal.

But what does that even mean? Is it possible that we may someday return to some semblance of our old lives? Or will we enter a "new normal"? And if so, what will that look like?

These are some of the questions Dr. Yossi Sheffi takes on in his latest book, *The New (Ab)Normal: Reshaping Business and Supply Chain Strategy Beyond Covid-19*. In the book, Sheffi, a professor of engineering at the Massachusetts Institute of Technology (MIT) and director of the school's Center for Transportation and Logistics, explains how the Covid-19 pandemic has affected businesses and society, and talks about the critical

role that supply chains have played in helping people, governments, and companies manage the crisis. He also examines what our post-pandemic world might look like.

Sheffi recently talked to *DC Velocity* Editorial Director David Maloney about the book and his thoughts on how the pandemic will reshape our supply chains.

Q: Your new book takes a look at the pandemic's effects on the economy in general and supply chains in particular. What did your research reveal?

A: I found that both good and bad things are happening. For some companies, business is up, and for others, it has virtually disappeared. The whole tourism industry and the airlines are in bad shape, for example.

But let's talk about supply chain in particular. Some of the "good" things that have come out of it can be summed up with the question that everybody asks my wife, which is "What does your husband do?" Until January of this year, when she told them "My husband is in supply chain," they just gave her that baffled, "deer in the headlights" look. Now, everybody nods and says "Oh, I know about that. So he is working on important things."

So, almost overnight, the whole profession became a household name. The importance of supply chain has been elevated. People and CEOs understand that this is the stuff that connects supply and demand. This is what makes the world work. That is something, I think, that will have profound consequences going forward.

Q: The pandemic has disrupted every business. How have successful companies managed their operations during these very difficult times?

A: There are several things that successful businesses are doing. For instance, they've established emergency management centers where all of the information comes through a set group of people who are the decision-makers. It used to be a room, but now it is, of course, virtual. They also have reviewed their suppliers to make sure that they're still around and are open. And they've reviewed products and customers. You may not have enough parts or raw material to build all of the product you need to build. You may not have enough to serve all of your customers. Which supplier and which customer should you focus on?

They also think about finance. Of course, we are going through a recession and cash is king, but businesses need to be very careful about extending terms of payment to suppliers. Companies have also been reducing SKUs (stock-keeping units). General Mills, for example, cut its Progresso soup lineup from 90 varieties to 50. This was initially done in order to assure supply. Now, it's being done to hold down costs because fewer varieties mean fewer changeovers in manufacturing.

Then the good companies never let a good crisis go to waste. They are planning for recovery. They are strategically looking at all their customers, all their employees, and all their business lines. What works and what doesn't, and what will be working in the future? Finally, something that is really unique to this crisis is that a lot of companies are

significantly accelerating their adoption of advanced tech. Whether it is connectivity or visibility or going through the cloud, companies are adopting optimization systems at a much higher rate than before.

Q: Did you find that the pandemic had accelerated the adoption of automated equipment and other advanced technologies in warehouse and distribution facilities?

A: Absolutely. Warehouse automation is accelerating rapidly, though the trend lines can be hard to decipher because, at the same time, companies like Amazon or Walmart.com are hiring a lot of people in response to the e-commerce boom. It is not only them; it is Target and Lowe's and JD.com and Alibaba—everybody is seeing online sales explode. But at the same time, they are certainly building a lot of new automated warehouses.

Of course, we're also reading about developments in transportation automation, like autonomous trucks, autonomous last-mile delivery. Many companies are developing these capabilities. There is even a company that is now seeking FAA approval to deliver human parts between hospitals via drones. And these are not small packages; they are 150-pound packages and the drones are actually small airplanes. People are moving all over the place when it comes to automation.

Q: Can you share some examples of companies that have successfully adapted to the new business environment?

A: We've seen a number of big companies adjusting, but I also have some examples of small, family-owned companies that have adapted to the times. One of those is a husband-and-wife company with 20 trucks that, prior to the pandemic, supplied food to institutions—universities, restaurants, and industrial parks—in the Boston area.

In March 2020, their business dropped 96%. So they turned on a dime and began marketing to consumers. Now, keep in mind that we're talking about people who never had a website, never took an order online, so this required a big adjustment on their part. But they quickly began stepping up their marketing and ordering capabilities. At first, they would just send out a PDF listing what they had available for sale. Then it became a website, though you still had to call if you wanted to order something you saw online. Then they put pictures on the website that customers could click to order. Then they added tracking and tracing capabilities. All of this happened in only about three to four weeks. They moved from being strictly a wholesaler to what was essentially a modern online retail operation. Now, of course, small companies can move on a dime. Still, many of their competitors failed, while they moved forward very quickly. So it was interesting to see.

Q: What are some of the attributes of companies that will make it through the crisis versus those that won't?

A: Well, think about the people who are most at risk of becoming seriously ill or dying. It is the weak, the people with pre-existing conditions or co-morbidities, people whose health was already compromised.

It's the same thing with companies. The ones most at risk are the weak, the ones that were already in trouble before the pandemic. An example would be U.S. department stores. Department store revenues had slipped from something like \$30 billion in 1999 to \$11 billion by 2019, so they had lost two-thirds of their revenue in 20 years' time. When the pandemic hit, a number of major department stores went bankrupt. It is the companies that were weak before who have not made it.

It is not the fast who survive, it is the people who can adapt. But in order to be able to adapt, you need some financial muscle, some reserve of money and talent, and the companies that were in trouble before didn't have that. It is the companies who had the talent, who were in reasonably good shape, and who could pivot that survived.

Q: So, what is our "new abnormal" and what are some of the key supply chain lessons we've learned during these pandemic times?

A: When we talk about the new abnormal, people are talking about the recovery being a V-, a U-, an L-, or a W-shaped recovery. But no, it will be none of the above. The recovery is going to be like a game of Whack-a-Mole, where a rodent pops up randomly on the play board and you have to hit it quickly. Think about the globe as your play board, where the pandemic flares up randomly in different locations, causing business shutdowns and halting your suppliers' operations. That is what we are facing, which is very difficult for supply chain managers.

By the way, the media are talking about the end of China and the end of just-in-time. All of this is just not going to happen, because moving back to the United States or to Europe goes against resilience. In order to be resilient in a world like this, you need to be global. You cannot consolidate your supply base in a single part of the world—even if it's the United States or somewhere in Europe—because that region could close with no warning. You need to be spread all over the world. You need to have factories and suppliers in more than one place.

This is only one aspect of what the world is going to look like over the next year or maybe a little longer, depending on the efficacy of the vaccines that are developed. We just don't know if these vaccines are going to be like the flu shot, which is only 60% to 70% effective, or if they will be high 90s, because a lot of the vaccines are based on new technology that we've never tried before. So, we just don't know. Clearly, for the next year at least, if not more, it will be a Whack-a-Mole recovery.

Q: To close, you suggest in your book that there may be a new "Roaring '20s." What do you see for the future, and what opportunities will there be for supply chain managers?

A: Supply chain management is becoming the new finance, the new marketing—a sexy profession that people are going to flock to. At MIT, we're seeing applications for our supply chain management program go through the roof, and other schools report the same thing. The word is out, so to speak.

We had the Roaring '20s after World War I. And we had some of the best growth the U.S. has ever seen after World War II. This is almost like a war. This is something that affects the entire world, and I think people will come out of this with a realization that the world is a lot more vulnerable than they thought. I hope so.