

COVID-19: Medical Professionals Will Save Lives. Supply Chain Professionals Will Save Livelihoods

Alan G. Dunn

Never in the history of global supply chain management has there been a challenge of the magnitude of the COVID-19 pandemic. When the pandemic begins to fade, **supply chain professionals will face a “triple bullwhip”** that has never been experienced before—a *demand bullwhip, plus a supply bullwhip, plus a logistics bullwhip.*

The COVID-19 pandemic is surely the most complex event that modern global societies have had to deal with since perhaps WWII. But this catastrophic event is, in some ways, even worse than global warfare. In war, you can see your enemy and study that enemy's strategies, all for the purpose of out-flanking, out-maneuvering, and out-living your enemies. And while war is, as they say, “hell”... it is an event that utilizes substantial historical precedence in strategic and tactical planning. As every officer educated in our country's military academies will tell you, “there is a plethora of past war-fighting lessons to learn because man has waged a plethora of wars.”

A viral pandemic, on the other hand, has substantially less historical precedence and lessons-learned to rely on when formulating strategies and tactics necessary to beat it. For Americans, this is especially true because the COVID-19 pandemic is not just somewhere else... it is also being fought on our own soil. This is unusual and unprecedented to anyone alive since 1865 when General Robert E. Lee surrendered to General Ulysses S. Grant at the Appomattox Courthouse... the last time a major war was prosecuted on American soil.

After every war, society changes in big ways. For example, at the conclusion of WWI, America's Wall Street replaced London as the center of world finance. While over 110,000 Americans lost their lives in this terrible war, the U.S. emerged as a global superpower, setting the stage for enormous economic growth and standard-of-living improvements that were appreciated by nearly every family in America. Every man, woman and child's life changed after 1918, in ways they could not have imagined when this war broke out just four years earlier. Even today, we celebrate the "breath of life" resulting from blood transfusions supported by the invention of blood banks... an outgrowth of WWI. Think about this... it took ONLY four years to change society in ways that are relevant today, 102 years later.

WWII resulted in even more and arguably, larger societal changes. The most notable changes experienced by practically every American included:

- The mass migration of families from inner cities to suburbs, driven largely by a “psychology of anguish” that caused returning GI’s to want a simpler, quieter, and more family-centric life. This migration, in turn, led to a rebirth in religion... and an expansion of church building across the nation.
- The creation of the GI Bill allowed returning veterans to attend trade schools and colleges paid for by the Federal government.
- Many became engineers, which in turn created the talent pool necessary to send men to the moon in 1969, a mere 23 years later. Between 1946 and 1969, America’s volume and breadth of technology jobs expanded, and Silicon Valley was effectively created. The manufacturing industry soared as technology and consumers drove demand for manufactured goods.
- Pent-up demand for consumer goods led to domestic product development, manufacturing, and sales boom. And while Americans were consuming at rates never seen before, the average U.S. citizen was not over-consuming. Many sociologists believe that while this “greatest generation” sacrificed in WWII, their memories of the 1929 Great Depression were also etched deep into their brains. The combination of the Great Depression and WWII seemed to have invented self-reliant, grateful, but cautious citizens. These citizens also initiated one of the biggest baby booms in our

country's history. The impact these babies have had on American society is, of course, too numerous to describe here.

Now we find ourselves in a different war... a silent war, perhaps. Silent or noisy, we are in a battle to save societies across the globe. This war on a virus never seen before, is one that has little precedent, at least in modern times. Sure, there have been previous pandemics (examples include: cholera, yellow fever, bubonic plague, swine flu, and SARS). Still, mostly they ran their course, killed scores of humans, and resulted in substantial societal changes.

In 1918 and 1919, over 500 million people worldwide were infected by the H1N1 flu virus, resulting in more than 50 million losing their lives. The average lifespan in America fell by 12 years, as measured in 1920. Such a loss of lifespan can and did change society forever.

Much like major wars, after every pandemic, society also changes in big ways.

The 1918 pandemic changed healthcare and delivery of health services across the globe. It also resulted in substantial federal monies invested in university research programs. This pandemic led to the creation of the science of influenza, which led to vaccines, antiviral drugs, and antibiotics. It also led to a global influenza surveillance system (before big-data capabilities existed) that monitors and predicts outbreaks to this day. Even with our current COVID-19 outbreak, the direct lessons-learned from the 1918 pandemic, such as social-distancing, robust hand-washing, respiratory and cough etiquette, are saving lives every day.

In terms of COVID-19, these lessons are so powerful, and our current knowledge of viral pandemic management is so advanced, that **leaders of countries across the globe for the first time ever, took the unprecedented step of shutting-down commerce in order to socially distance people—on a mass scale never seen before.**

When one studies modern leaders in the virology research and medicine delivery professions, one can quickly come to a reasonable conclusion that we are in good medical hands. Listening to these doctors, who have themselves heard to prior pandemic lessons-learned and connected that knowledge with state-of-the-art medical technologies, is a good bet. None of us should be second-guessing the collective wisdom of these professional unless, of course, we are one of them!

It is the medical profession that will save our lives... but it is the supply chain management profession that will save our livelihoods.

President Trump and numerous others have admitted that while social distancing is critical to saving lives, it comes at a huge economic price. Shutting down global economies cannot be accomplished without years of subsequent pain. This pain will not be medical in nature. It will be economic, and more precisely, standard-of-living in nature. Some have said the quarantines could not be worse than the medical cure, which is nonsensical on its surface because dead people do not feel pain. Yet we can still be inspired by this premise and encouraged to reduce the economic pain we are all surely going to experience.

When the virus begins to subside and social distancing rules relax, it will be the supply chain professionals' time to step up and save numerous global economies. There will be no profession

whose efforts will be more needed than that of the supply chain management profession. I don't care if you are in procurement, conversion, planning, distribution, logistics or reverse logistics... coming out of this pandemic, each of you will have a job driven by both corporate and societal imperatives

Just as doctors take an oath to do no harm, all of us in the various supply chain disciplines need to take a metaphorical oath to contribute to society and to reverse the draconian damage done to our society, country and way of life from the efforts employed to save that same life.

Recovery will not be easy. As of the writing of this article, most ships, barges, containers, and planes are in the wrong global locations. Before cranking up global supply chains, extremely complex planning will be necessary to position these assets where they are needed. This massive effort could easily take 90 to 180 days, disproving the "rapid turn-on of the economy" philosophy currently promoted by politicians who understand little about global supply chain systems and networks.

Likewise, with the enormous temporary furloughing of talent, companies are going to need to expeditiously restart and redeploy human assets, just as hospitals and clinics had to redeploy human assets while fighting for patients' lives.

Global supply chains will undoubtedly change in ways we could not have predicted as recently as December 2019. Manufacturing in China is sure to take a hit with much of it moving to other countries, including certain European and North American venues. No one knows how deep this will go, but political and economic pressures are sure to start the migration of manufacturing supply chains out of

China. Procurement specialists will need to align their supply bases as well as their supportive logistics providers. It is even possible (some say reasonable) that the U.S. State Department and Department of Defense will determine large swathes of food, pharmaceutical, precious metals and medical devices to be of national security interest, meaning that selection of suppliers and locations of manufacture will now include a compliance element not previously experienced. Robust, formal, fact-driven supplier performance and risk assessments are sure to follow.

The use of technology will also advance with supply chain leaders calling for more vertical transparency in their global supply chains. Blockchain technology's ability to provide immutable transparency and proof of origin will likely be central to these new global supply chain structures. Professionals are going to need to know about advanced technologies if they are going to effectively implement these new post-pandemic global supply chains.

Communication between leaders, teams, suppliers, and manufacturing sites will likely change. You can't mandate your entire team to work remotely for several months without them picking up some new communication skills and processes. Does anyone actually think global supply chain professionals will anytime soon be traveling as much as they did before COVID-19? Does anyone doubt that the convergence of information systems, computational power, and new communication processes won't change the fundamental fabric of work?

Total-cost recognition, including risk-costs will surely be part of the new supply chain landscape. Companies will demand the valuation of risks associated with certain supply chains, and those valuations will likely become part of the supplier selection process. The lowest-

cost mentality will die a quick death in the supply chain of the future... meaning that supply chain professionals are going to have to learn how to assess and monetize risks before selecting suppliers or siting new manufacturing plants.

I could go on for a very, very long time on how global supply chains and the professionals who operate them will change. What's important is to accept this and get prepared. Also, look for opportunities for competitive advantages that can be delivered from newly constructed supply chains. Companies that can recognize these and be three moves ahead of competitors can do more than survive they can prosper and dominate markets.

I repeat—it is the medical profession that will save our lives—but it is the supply chain management profession that will save our economies and livelihoods. If you are a supply chain professional, get ready to step up to a responsibility that is in many ways, bigger than you and your company.

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Alan G. Dunn is a management expert whose clientele has included some of the world's most recognizable brands, Fortune 100 companies across a variety of business sectors, and departments of the U.S. government. With 40 years of experience, he has established a reputation as a leader in his field, specializing in strategic planning, supply chain management, manufacturing management, operations management, cost management, and business finance. He has participated in over 240 manufacturing and distribution projects within over 150 companies in more than 20 countries.

As a recognized affiliate of Caltech, Mr. Dunn chairs the next-generation executive education programs for manufacturing, operations, and supply chain management within the [*Center for Technology and Management Education \(Caltech CTME\)*](#).

Mr. Dunn is the founder of the Manufacturing Executive Institute and former chair of the American Production and Inventory Control Society (APICS). He serves on the boards of directors of both public and privately held international companies, including Natural Alternatives International and Idaho Asphalt. In 2007, the National Association of Corporate Directors (NACD) recognized him with the Director of the Year Award. He is the president of GDI Consulting.

Previously, Mr. Dunn was a vice president at Gemini Management Consulting and a partner at Coopers & Lybrand, positions in which he led large technical manufacturing teams in innovative projects to enhance productivity. Prior to joining Coopers & Lybrand, he was president of ADI, a successful consulting and training company that he sold to Coopers & Lybrand in 1990.

He has built up a uniquely broad perspective as an adviser and educator. In addition to his executive and consulting experience, Mr. Dunn has an extensive background in most functions within manufacturing companies, including several years of direct experience in line leadership.

Mr. Dunn has worked with companies such as Amgen, Baxter, Daimler-Chrysler, Ford Motor Company, Johnson & Johnson, Northrop Grumman, Sony Corporation, and United Technologies.

He speaks internationally on finance and manufacturing topics. He has addressed APICS, the Council of Supply Chain Management Professionals, the Product Development Management Association, the Society of Manufacturing Engineers, the National Association of Accountants, and the Young Presidents Organization. His articles have been published in several trade journals.

Mr. Dunn is an active member of ASCM/APICS, the Society for Human Resource Management, and the NACD. He was independent director of the Society of Cost Management.

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