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Digitized Control Towers- the Next Normal is Here

The Next Normal is Here. Now Business Network Technology Can Help Companies Adapt and Prepare for Future Impacts

Since the Covid-19 outbreak we all live in a world no one could have imagined. Many have called it "the new normal." The consequences for people, businesses and the economy are noticeable for each and every one of us. Unlike other crises caused by weather, wars, or governments, the impacts here are truly global in nature occurring at an unprecedented scale in every country. The disruptions caused by the virus are especially noticeable in industries that live off contact with customers such as restaurants, sports activities, entertainment, travel, and events. But people and markets have quickly adapted - certain industries have seen dramatic increases in demand, while others have suffered.

Food retail, DIY products, home fitness equipment, technology, ecommerce, and streaming services were amongst those that have thrived during the outbreak and the change in consumer behavior. Companies that have been able to turn their businesses from classic brick-and-mortar to online shops and ecommerce channels have also managed well during the crisis. They have been able to pick up their consumer demand and move it into their online business models, using the need for people to stay at home, while developing new delivery models and adapt new payment methods such as PayPal and pay-by-phone along with other no-contact services.

The fact is, no one could have predicted these outcomes. There have been shifts in demand, shifts in supply, and dramatic changes in consumer behavior, many of which will remain permanent. The interesting business question is "How could business network technology have helped companies respond to these market impacts (demand shifts and channel changes) – in ways that help them survive or even thrive in the "next normal" economy? How can it help them be better prepared for such impacts in the future? Let us have a closer look at three examples from companies in specific industries and how Covid-19 impacted their businesses.

Furniture Retailer

One of the largest furniture retailers in the world closed its store locations like many others and lost 35% of revenue. Since the main part of the business was heavily based on customer foot traffic coming into the stores - getting the look and feel of the furniture and home accessories - shopping online has become more of necessity for survival rather than an opportunity. **Since reopening their stores with limited customer traffic and health and safety checks because of the pandemic, click and collect started to thrive since consumers were forced to find safe ways to get new furniture by ordering online and picking it up directly at the store locations warehouses.**

Beauty Products Retailer

Like many other retailers, this company had to close-up shop during the pandemic as well, killing the most vital part of their business since testing and smelling perfume and cosmetic products, even trying samples, are essential to the eventual sale. The drop in revenue was huge but their online business thrived in parallel, so that revenue levels have come back to about 40% compared to the previous year. **But since pure-play internet companies like Amazon have already established their online business, being "late to the party" means they need to catch up and have been able to increase their business during Covid-19.**

Fashion Retailer

A German fashion retailer had to close all of their locations which are typically located in a many of Germany's city centers, and as a consequence revenue was down to about 4% of the previous year's numbers. The fashion industry is especially interesting, first of all, **since pure-play internet companies have been able to increase their business during Covid-19 because people simply had no other choice and secondly, since people are hesitating to go out shopping in-store, lots of stores in city centers are closing or going bankrupt, which further accelerates the death of city centers we are all grew up with.** These scenarios were like "pouring gas on the fire" for already struggling companies in the fashion industry, where selling through retail stores is the main part of their business. Another interesting phenomenon has occurred in apparel, where luxury brands indicated that people were not buying clothes anymore - because of no occasion to wear it or to show it! And that despite offering a good and reliable online shopping experience.

These examples show that every Retailer faced different challenges despite having to close stores and shift to e-commerce, where possible. The question remains if business network technology could have helped these businesses and many others optimize their response, minimize the impacts and respond more quickly in capturing new opportunities. Could it have helped in shifting and redirecting stocks, finding new customers and new channels, and canceling production or finding new sources of supply a early enough to avoid the most massive impacts? Can artificial intelligence, machine learning or any other technology offer a way to help mitigate risk in the future, and help companies navigate the path out of the worst crisis that our economies ever faced?

Requirements for Success in the New Normal

The lessons learned during the pandemic have been difficult for many companies, but there is no question that many business requirements have been brought into clear focus.

- **An omnichannel strategy as essential.** The more paths a business has to reach the consumer and the more options a consumer has to engage with a brand, the better. Walk in retail stores. Direct-to-consumer ecommerce. On-line ordering and store pickup. Ecommerce with store returns. Store ordering, bagging multiple items, and home delivery. **Being able to engage with the consumers on many different channels is vital in today's economy with more people trying to get a shopping experience "on-the-fly" and making the most of a busy schedule.** Thus, companies need a clear omnichannel strategy as the best course to mitigate channel risk.

- **Ability to rapidly ramp up or ramp down of the supply network.** Demand shifts – whether up or down – need to propagate in real-time upstream across all tiers of supply. Increased demand is only a benefit if you can meet it, and that means the entire supply network has to be able to respond in unison. It only takes one lagging party to pull down the supply chain and undermine the customer experience. Similarly, if demand drops radically, it's important that all supply chain participants are aware of the change immediately, and can reduce and redeploy supply to other sites to reduce waste.

- **Ability to rapidly onboard of new carriers or modes of transportation.** A significant shift in demand by product or region often leads to shortages in logistics capacity. It's no use having the parts or goods if you can't ship them. You need to have visibility and access to all your logistics options in order to keep logistics costs low, and you need the ability to onboard new carriers quickly when your established carriers cannot meet the need.

- **Ability to rapidly onboard new sources of supply.** If old ones are blocked for some reason, for example, by COVID, natural disasters, or trade wars. Rapid changes in product demand can also strain existing suppliers and draw in new competitors. It's important to be able to connect quickly to new suppliers to replace failing old ones, or to support the development of new products.

- **Smart allocation of manufacturing capacity and allocation of inventory.** If you are unable to meet the full demand due to manufacturing, COVID, or other constraints, you must ensure that you have the ability to allocate available inventory and manufacturing capacity to serve your key customers. **This is even more important for life-saving goods needed in a pandemic situation i.e. masks, sanitizers or first-aid kits.**

- **An intelligent process to match demand with supply in an optimized way.** This requires real time information across consolidated demand, and all sources of supply so that you can optimize and reallocate to maximize service levels at lowest cost, and do that continuously across the network. In order to do that, you'll need an accurate view of demand across every channel, and a real-time view of every source of supply and inventory – including what's on ships, rail and containers – on a worldwide basis. Otherwise, how can you match optimally?

Capabilities of Business Network Platforms

Today's business network platforms provide capabilities to meet all these business requirements and more with the following attributes:

- **Provide a Real-Time Single Version of the Truth.** **This cannot be stressed enough because the potential is tremendous.** It's simply impossible to optimize without this, and this is the major limitation with traditional supply chain management technologies and narrow, functional systems like TMS/YMS/WMS. Without it, you'll be limited to sub-optimal solutions that don't take into account all the data and the current status of factors like demand, inventory, available manufacturing capacity and logistics options. Multi-party decision-making requires real-time status for all parties.

- **Visibility That's Truly End-to-End.** Across your entire supply network and every business partner. This is required to optimize operations across all customers, not just one. It's also necessary to spot and respond quickly to risk and new opportunities. Because multiparty networks are far easier to onboard to and deliver value to all participants, partners are far more willing to onboard. This means no partners need be "left behind," and consequently, you can eliminate the blind spots in your supply chain.

- **A True Multi-Party Many-to-Many Business Network.** Whereas traditional supply chain technologies like ERP, focus on the individual enterprise, multiparty business networks are community-first; they are specifically designed to support a network of multiple enterprises. Companies connect once to the network, and then they can be instantly connected digitally to any other company on the network, similarly to how we can connect on a social network. **It is the collaborative approach that makes a Network successful. All players inside and outside of the enterprise need to access the Network based on permissions specific to their organization and role in order to collaborate effectively and securely.**

- **Planning and Execution on One Platform.** Essential in today's environment that has turned planning on its head. A multiparty network with a single version of the truth is required to incrementally plan and execute all day long. Gone is the need to plan, "toss it over the wall," and execute in separate system long after the plan has become impractical. Demand, supply and logistics change rapidly, even on a minute-to-minute basis. **Requirements for multiple scenarios arise because of the complexity and many influencing factors so comparing different scenarios and outcomes is vital.** With a real-time business network, your plan reflects the reality, so your execution is more effective. Plans are continuously updated based on real-time feedback, while execution is optimized based on real-time data. This occurs incrementally, continuously and locally, so as not to disrupt the entire network by "re-planning the world. "

- **Real-Time Alerts and Decision-Making with Prescriptive Analytics.** Solve problems in real time with predictive and prescriptive analytics. In many cases, predictive and prescriptive analytics can pre-empt problems, by detecting underlying issues and resolving them before they erupt into full-blown problems. And by detecting issues early, you have more options for resolving them, and can do so much cheaper, e.g. by avoiding expediting shipments to cover shortages.

- **Capabilities for Autonomous Supply Chain Management & Optimization.** Automate routine tasks and apply intelligent agent technology for more complex optimization. New intelligent and autonomous agent technology means you can have your supply network "under a microscope" 24 hours a day, and deploy autonomous virtual agents to continually optimize with a precision and across a scale never before

possible. You capture all opportunities for optimization, and you can automate many of them too.

- **Performing Global Demand-Supply Match.** Multiparty networks make it possible to consolidate all demand and every source of supply for continuous demand and supply matching. This is the only way to fully optimize both service and costs, considering all demand, all supply, across all customers and sources (including in-transit, "moving warehouse" inventory).

- **Start with a Low Entry Barrier.** Implement quickly for immediate value at low risk. Due its "connect-once" capability, a multiparty network enables you and trading partners to onboard quickly, begin using network-based supply chain capabilities, and start transacting and leveraging the network services in months not years. **Speed matters, as companies benefit from early results, and accelerate future projects as they transition to the full network experience.** Internal and legacy systems can run in parallel with the network for minimal disruption to your processes, while still exploiting the latest technology. You start with the business function you need to optimize most – matching your highest priorities – and evolve by adding and turning on new services over time (as you turn old systems off, if you choose). It's not an "all or nothing" approach and there are no "big bang" IT projects in a business network platform strategy. In addition, new services and technologies are continuously deployed across the network, meaning you're always at the forefront of technological innovation.

Mitigating the Impacts and Capitalizing on Opportunities

So how would the companies mentioned earlier have fared had they been running a real-time business network?

The furniture retailer relied almost solely on foot traffic to its stores. Without an ecommerce channel to exploit, its options are limited. However, a business network would have mitigated the effects of the drop-off in sales by enabling the retailer and its supply network to react faster. Networks with intelligent and autonomous agent technology can detect shifts, patterns and potential problems much faster than human managers. Then, by propagating the new demand and forecast in real-time to its upstream partners, all parties are aligned and can respond in unison. If the demand is lower, they would have been spared making, carrying and even shipping unnecessary inventory, thus reducing costs and waste. A business network would "soften the blow" even when there is no avoiding the impact.

Perhaps the best interim option for a company in this position is to target existing customers and prospects with an irresistible "try before you buy" offer combined with free shipping and generous payment terms. This would let them move inventory, delight and retain customers, and keep the lights on while tackling the ecommerce challenge. And that must be solved for their business!

Business network technology would help them make that transition and more easily incorporate this new channel, including access to the network's last-mile delivery providers. For full visibility and maximum efficiency, ecommerce should be integrated with their retail experience in a single business network, thus enabling a seamless customer experience, with real-time order and shipment status regardless of the consumer's preferred channel. Of course, it should support forward and reverse logistics to enable seamless delivery and product returns.

The fashion retailer is in a similar situation, relying heavily on store locations for sales. A rapid launch of an ecommerce channel should be a high priority. As with the furniture retailer, a business network would enable

the supply network to ramp up or down across product lines quickly, to minimize waste for the retailer and all trading partners. A top priority should be establishing or strengthening the company's ecommerce channel, to continue serving customers online.

Hand-in-hand with that, the business should re-evaluate products and styles. For example, it may be feasible to manufacture personal protective equipment (PPE) like gowns, masks, and other PPE. They could target the casual, work-from-home apparel market. Whatever their decision, it's necessary to realign supply to the actual demand, and propagate that to the entire supply network. In the case of new products, often new suppliers will need to be onboarded, and the product launch closely monitored in real-time, with production, inventory and logistics precisely coordinated depending on the success of the launch and the sales volumes.

The beauty products retailer, our third example, has an ecommerce channel which has mitigated the effects of its store shutdowns. While its online channel thrived, it is still likely that the online channel could have been better utilized and optimized for growing the business. Business network technology includes a full range of supply chain capabilities and could help with:

- Demand sensing and consolidation– What's selling now? What's my demand across all channels?
- Inventory visibility and allocation – Where is all my stuff? What's my inbound supply and can I reallocate it to better match my demand in real time?
- Inventory optimization – Where should I place my stuff for the best service at the lowest costs?
- Transportation optimization – What's the best way to get it to the customer?
- Supplier collaboration – How can I get my new suppliers on-board quickly?

A business network, with natively integrated network services and intelligent agents spanning all parties and including inbound supply, outbound fulfillment, and logistics, would prove invaluable.

All companies, even those thriving and excelling at ecommerce, should also re-evaluate product lines to reflect the new reality, and another probable post-COVID shift as businesses reopen. If and when new product designs or entire product categories are warranted, a business network contains a community of potential partners, including suppliers, distributors, and carriers, that significantly reduce the burden of starting from scratch and establishing new transaction channels.

In this paper, we've focused on how business network technology can support struggling retailers. However, there is another retail segment that has seen enormous demand growth, and here business network platforms can also be instrumental.

Grocery retailers have seen demand surge in 2020 anywhere from 50% to 150% during the pandemic. **People have been stockpiling groceries, creating sharp spikes in demand. The result was products quickly ran out causing stockouts and requiring rapid shifts in supply.** Just as business network technology can quickly help to "dial down" a supply chain to minimize impacts, it can also help to:

- Rapidly communicate surges in demand across all tiers of supply in real time to "dial up" performance.
- Enable suppliers and grocers to reallocate and adjust supply across channels, as in shifting from bulk packaged foods for restaurants to individual packaging for grocery retail consumers. This minimizes waste and maintains revenue streams.
- Enable grocers to respond to new consumer trends in cook-at-home, baking, and healthy/fresh options.

In Conclusion

Businesses and people faced all kinds of trouble during the pandemic and we all can agree that no one could have seen this coming or even predicted what happened and is still happening. This paper indicates that with the help of technology at hand and a sense for the use of what is possible with Artificial Intelligence, Business networks are very much capable of helping companies and industries navigate the storm. Business networks and the technology that supports them must be agile and highly responsive, and can stretch and shrink to adapt to rapid changes in demand, channels and trading partners – to quickly enable them with new collaborative network capabilities. They can provide AI-based advanced analytics to detect shifts and identify problems earlier, as well as resolve them autonomously, if so desired. For these reasons, firms running on business network technology will be better optimized and less likely to be blindsided by the next crisis – whether man-made or natural. Winners will be those able to mitigate the risks, adapt to the shifts, and capture new opportunities that grow market share. That's what business network technology is designed to do.

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