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Food & Beverage Industry – Competing on Supply Chain in the New Normal

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COVID-19 has irrevocably changed the global economic landscape and exposed fragility in modern supply chains. The new consumer expects more convenience, more personalization, and more innovation in the products. They are increasingly asking for their food to meet much higher standards – organically farmed, ethically sourced, delivered in sustainable packaging and meet their individual dietary requirements. While there is new competition, there are also new opportunities to rewire the value chain.

In pre-pandemic era, sourcing and supply chain decisions were driven by complex production processes, protection of intellectual property, unit cost reduction leading in some cases to higher reliance on a geography or company. Supply chain risk management practices were limited to top tier suppliers - leaving supply chains vulnerable to shock. Ripple effect of the same is now visible. Food producers have to re-visit pack sizes and logistics as ‘eating out’ is getting increasingly replaced with ‘cooking at home’. Even mature supply chains of F&B CPG companies are hit by supply shock followed by demand shock. Heightened demand for trucking, coupled with, reduction in 3PL (Third-party Logistics) capacity challenged supply chain investments more than ever. With more and more consumers shifting to online channels, along with increasing store closures, even conservative companies are exploring e-commerce.

However, it’s all about the ‘survival of the fittest’ and supply chain agility is a key factor. There are also innovative suppliers emerging, such as vertical farms popping up. These emerging disruptions are creating the next generation of successful companies, many of them start-ups that are addressing emerging needs of the new consumer. Large enterprises are looking for innovative ways to de-risk demand / supply by diversifying access to these next generation suppliers and geographies.
Supply Chain
The New Competitive Advantage

Amid these disruptions, there are companies challenging themselves to evolve to the new normal. They are innovating not just what they sell, but every aspect of their operating model. And most of all, they are repurposing their supply chains to address emerging consumer spend patterns and evolving challenges. Being at the heart of F&B operations – Companies need to manage cold chains for perishables, provide end-to-end traceability, follow GMP and comply with a myriad of regulations from the FDA and USDA in the US, 178/2002 in Europe, and similar regulations in other countries.

Competing on supply chain operations

While some of the players are rising up to the challenge, how they pivot their supply chain capabilities in the coming months and years will become an important source of competitive advantage in the New Normal. To design supply chains that meet their aspirations in the emerging competitive landscape will be a key factor in their survival and growth. Increasing number of players would attempt to decentralize sourcing and manufacturing and attempt to bring it home. With higher automation and increasing need for personalization by consumers, smaller batch production is picking pace.
Despite technical investment and intervention, there are huge areas of supply chain that remain manual and human-intensive. There are inventory visibility and last mile connectivity challenges. So, how do organizations address these?

Fortifying traditional capability measures of supply chain performance

The health measures of supply chain in food and beverage industry will become more important than ever before. To fortify those, companies will need to be more comprehensive in their approach and will need to build a much wider set of capabilities:

**Efficiency**: Improvements in the cost profile of supply chain operations will fuel innovation, experimentation and expansion. Companies will need to find opportunities to more aggressively weed out wastage across the entire cost bar. For example - through shrinkage elimination, packaging innovation, improving sourcing costs, and reducing transportation costs. This would require a very granular understanding and modelling of the costs and ability to comprehensively understand the impact of cost elimination initiatives.

**Velocity**: Their ability to move material and information fast as companies receive their demand signals will need for them to look at their strategies such as for inventory placement and improvements in signalling speed across supply chain.
While the traditional measures of supply chain will continue to be important, they will not be sufficient in the new F&B landscape. There are three new frontiers on which companies will differentiate – Malleability of supply chain operations, its ability to support personalization at scale and its ability to support solutions for consumers.

**Malleability:** The pace of changes in consumer behaviour is increasing by the day. With new start-ups, new technologies and consumer preferences, companies need to launch new products, enter new markets, and get into new channels with ease. This requires ‘malleability’ to be baked into the core of supply chain strategy. It would require a set of capabilities that have traditionally not been looked at including ability to design, model and visualize the end-to-end chain for the new product extension, category or business model.

**Predictability:** Their ability to know with reasonable certainty when and where the activities and material movements will happen. This would need improved forecasting, better end-to-end visibility and better ecosystem coordination.

**Agility:** Their ability to quickly ramp up and down. This will be driven through creating the right capacity modelling across the supply chain and through improved planning for base and volatile loads. Companies will also need to better capture demand and supply signals and do better end-to-end integrated planning, often across ecosystem partners.

**Resilience:** How the supply chains react to unforeseen breakdowns, for example when a company can’t source ingredients from a country under outbreak of a disease. A breakdown of the key supply line. This would need improved "what-if" planning and the design a network of options.

**Building new frontiers of differentiation**

While the traditional measures of supply chain will continue to be important, they will not be sufficient in the new F&B landscape. There are three new frontiers on which companies will differentiate – Malleability of supply chain operations, its ability to support personalization at scale and its ability to support solutions for consumers.
**Solution centricity for consumers:** The supply chains will need to pivot, from moving food to supporting solutions for consumers. We know that consumers consume food to address different unstated needs, for example feeling healthy, enjoying a friend’s company, stress busting or saving time in their busy lives. While products and branding messages are often designed to target these needs, it is rare for the supply chains to be designed with these needs in mind. Typical approaches apply ‘User-Centric Design’ to design the supply chains software systems. A more robust approach would also use Design Thinking to incorporate ‘Consumer Centric Design’. Such solutions may range from ‘ready-to-cook’ ingredients, packaging options to addressing community needs of specific groups (e.g., Vegan).

**Support personalization at scale:** As consumers demand more personalized food options, the ability of the supply chain to support a wide spectrum of personalized needs for the customers will become very important. This would need supply chains to be configured to support very granular and fast-moving demand signals. However, this needs to be supported without losing scale impacting how various algorithms aggregate and disaggregate demand, inventory, production plans, supply, transportation routes, etc. at various stages in the supply chain. Such personalization may be limited to high end groups in the initial phases. However, automotive industry has seen the benefits of ‘design for one’ approach over the years.

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**Embracing the new digital tools**

So how do the companies weave these capabilities in their supply chains? How do organizations evolve digital maturity in uncertain times and steep investments in technology platforms? Transforming supply chains can be overwhelming especially since companies have to continue to keep their lights on with the current business as they evolve. The best way to start is by defining the blueprint of the future supply chain. Then one could create a roadmap that starts with quick and easy wins and then build the momentum for bigger next steps.
Starting with small easy wins: These include leveraging the current investments to the fullest (eg., leveraging functionalities of a DOM (distributed order management) or TMS (eg., load tendering) to the fullest or building wrapper capabilities to address key gaps (eg., dashboards or communications).

Visibility: Despite substantial investments, only few companies can have reasonable visibility across end-to-end supply chain. Lack of last mile inventory visibility to limited in-house inventory visibility impact organizations ability to take timey decisions. Granularity and fluidly join the dots to improve end-to-end visibility across the supply chain. With digital technologies, from IoT to Blockchain, it is now much easier to connect the dots in a reliable way, thus improving the multi-tier visibility, from farm to plate. Technologies such as Graph database allow a more fluid way of connecting various components, thereby allowing insights that were not earlier possible.

Digitize white spaces: Huge areas of supply chain continue to involve substantial manual effort. Identifying and prioritizing automation opportunities with high ROI improves malleability, resilience and overall supply chain efficiency.

Standardize the core: With increasing acquisitions, global expansion and evolving regulations, substantial customization, dead code and lack of standardization across divisions creeps in. Profiling core systems for such gaps and standardizing the core would not only reduce operational costs, but improve ‘agility’ in the supply chain. This may involve process harmonization and intra-company collaboration, enabling extended supply chain players etc.

Building agility: Organizations need to improve access and quality of supply chain data. Technology platforms will have an ability to discover, ingest and mine these datasets to continue to improve supply chain capabilities. This data could also come from external partners and data syndicators such as IRI and Neilson and help organizations in sensing demand changes and taking timely decisions. Technology platforms will also allow consumption of ever-evolving machine learning capabilities improve the predictive power of the supply chain.

Sharpen the edge: Minimal investments to improve differentiation (eg., e-com, last mile delivery) in consumer facing areas to aid personalization, consumer experience will improve competitive advantage.
Conclusion

Food & Beverage companies have a reason to be excited! As the industry evolves, new opportunities will emerge. Those who can morph their supply chains to take advantage of these opportunities will drive the next wave of success in the upcoming decades.

About the Authors

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Pankaj Chugh is the leader for Consumer Goods, Retail and Distribution segments for LTI. Pankaj has a track record of leveraging digital technologies in generating successful organizational transformations. His work includes helping clients launch new business models to harnessing digital in operational changes across the value chain. Pankaj looks at the impact of digital interventions holistically – to various personas, across the value chain and through the entire spectrum of technology innovations.

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