



COVID and the Industry shift – Cause or Catalyst

Food & Beverage Industry's Supply Chains

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The Food and Beverage industry is subject to constant pressure and dynamism owing to changes in customer preferences, global and local regulations, ubiquitous internal margin pressures among a few. COVID 19 presented a bouquet of new challenges in combination, thus catalyzing the need for automation and digital adoption in the industry. This White Paper looks into some of the key drivers affecting the “Farm to Fork” supply chain.

An integrated end to end supply chain, that is agile, efficient and responsive to change has become a dire and urgent need.

The Trends

Millennials going mobile

Increasing number of consumers, esp. the millennials in European countries would rather order their food online than visit a local grocery to pick their stock the conventional way. This follows the trend that brick and mortar banks and book stores faced in the last decade. Although some demographics still prefer to carry out these operations in the physical building, a rising number of people are adopting mobile applications to order their food and groceries. Therefore, the number of banks, bookstores and in the future retail outlets will come down significantly but not altogether cease to exist. This trend has been catalysed by the novel corona virus.

Lockdown struggles

In addition to the diminishing need for grocery retail stores, the pandemic saw a huge dip in eating out, mainly because of the restrictions around visiting restaurants and pubs including outdoor seating which is a big driver for F&B, esp. in summers. This may well be a temporary trend. As more people get vaccinated, and lockdown restrictions are being eased, demand for outdoor dining will pick up. But the losses will not be offset in the quarters to come. It's worth noting that dine ins and pub visits are more profitable business than cooking at home. This will put additional pressure on the industry to become more cost effective and efficient.

Procurement networks perplexed

Supply chains have been adversely impacted by the pandemic. For instance, Coca Cola Co. experienced delays in their raw material supply from china and the resulting industrial interruptions. The company sources sucralose from both the US and China and flagged that Chinese suppliers have experienced delays in production and export. The root cause in these cases was the pandemic, but this

also brought the light the vulnerability of our existing networks. There is hence an urgent need for Optimisation of the Procurement Network - Strategic and Tactical. Local for local gets more importance.

Demanding Consumers

Consumers want to know where and how their products are made now more than ever before. There is a major shift towards plant based diets, long shelf life products, ethically and locally sourced foods, protein rich, healthy foods, ready to eat meals etc. And this demand is highly dynamic in nature and sensitive to demography, with a very impatient consumer at the end of the value chain. Good news is technological advancements, and closeness to consumer through the advent and spread of social media analytics have made it easier to quickly develop new products to meet the liking of the 'fickle minded' consumers much faster than before. Companies are able to launch localised products based on the trends and spikes in the region.

Kitchens getting Smarter

In addition, to wanting to know the origin, freshness and quality of food about the customers want to understand the food supply chain and extend it into their own homes, even to their own refrigerators. These trends have been evident for a number of years and have even been intensified by the Corona crisis.

There is a surge of Smart Refrigerators that will play an integral part in extending the supply chain by tapping into individual consumer habits and needs. Owners kept informed about available stock of groceries and their condition with suitable cooking recipes and inventory is autonomously restocked as necessary. As a result, Smart Refrigerators represent the new end point in a fully autonomous F&B supply chain.

Regulations getting rigid

While the carbon emissions mandate holds across industries, F&B companies in particular will be faced with unique obligations to reduce the food wastage they are guilty of, across the supply chain – and especially at the far end of it i.e. Retail store, buying consumer and their kitchen

The revised EU Waste Legislation adopted on 30 May 2018 by co-legislators, calls on the EU countries to take action to reduce food waste at each stage of the food supply chain, monitor food waste levels and report back regarding progress made. In industrialized countries, more than 40% of the food losses occur at retail and consumer levels.

Reliable demand prediction through trend analysis, avoidance of scrap through rapid root cause analysis of production stops, automated refrigeration and temperature control in transport, storage and at retail end, condition based shelf life labelling and recipe based ordering at the 'smart kitchen' side – all that will help to significantly reduce wastage across the entire supply chain.

A Proposed Solution: End to End Supply Chain integration

It all comes down to delivering from the warehouse straight into the consumers' kitchen – or refrigerators – as efficiently as possible through resilient and optimized supply chain. This requires diligent and quick adoption in the physical world by exploiting digital strategies around route optimisation, cold chain monitoring, inventory management, demand forecasting, user friendly digital interfaces.

Interestingly, start-ups with their low overhead and agility seem to have done very well, only lacking the deep pockets to make big investments to re-haul operations in a short time.

This horizontal integration will be the problem and the solution for the future. On an average Supply Chain accounts for about 10% of the total sales revenue. Of this total budget, the main elements are as follows: Warehousing 20%, Transport & Loading 25%, In-store replenishment 30% and Shrinkage 10%

The starting point is an ongoing qualitative and quantitative assessment of consumer behavior and demand patterns, an efficient demand forecasting goes a long way in reduce inventories and lost sales, enabling efficient store and warehouse operations, and reduce shrinkage.

Modifying supply chain network takes significant effort and time to shape a network structure, key being ensuring alignment with the dynamic pace at which retail business environment is changing. New sales channels, increased and varied raw material, finished goods providers, packaging suppliers, more volume, and a higher complexity have to be considered while carefully redesigning a brownfield setup. These changes will then directly influence procurement strategies, inventory management, warehouse automation, returns handling, etc.

An integrated end-to-end supply chain model needs to be accountable and facilitate collaboration of all stakeholders, transparent for real time visibility, and agile to tactical changes in operations. And most importantly to cope with the current challenges, the solution must be closed loop, utilizing data, information and insight from "farm to fridge" including consumers to build the prediction and optimization models and exploiting the full potential of digital solution.

In our next paper, we will explore the solution more in detail. Watch this space for more.

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