PLANNING IN THE DIRECT-TO-CONSUMER PARADIGM
A significant change in the post-COVID world is the massive push to jump on the direct-to-consumer (DTC) bandwagon. Every leading consumer product and retail company now has a DTC strategy in place. A DTC strategy is rooted in three different ideologies that may apply differently to various organizations.

1. **Last mile connects**: When a brand connects and works directly with the customer, there is a greater understanding and control over the demand and sentiments associated with it. A DTC platform provides the ability to strengthen branding using sleek imagery or even showcase associated products or services in a seamless experience. It is essential to engage and involve an end customer, and this approach creates the much needed “stickiness,” a must-have in an otherwise highly commoditized and private label world.

2. **Supply chain optimization**: A natural outcome of a highly predictable demand stream is a highly predictable supply stream. The risks involved in a supply chain are usually undefined and unquantified, leading to a hedging process called inventory management. This process can backfire for an organization when products become obsolete or stocked at an unintended warehouse, increasing the costs to the supply chain. A DTC model disintermediates some of the players in the network, thereby reducing risk.

3. **Optimized fulfillment**: A DTC process ensures a delivery-by-date for every possible demand, bringing a sense of predictability in the process. No longer does a customer have to discover an unexpected stock-out situation at a retail store. A logical “closure” to demand, one way or the other, improves the overall supply chain experience. While these ideas seem obvious in the interconnected world we live in today, the traditional planning applications organizations utilize today are designed for a linear supply chain. Simply put, the latest supply chain developments have made traditional planning applications outdated. Most organizations have built custom applications to model DTC. There are standard toolsets in the market available to create a website to generate demand, improve branding experience, engage the customer and integrate with other enterprise applications. However, there are a few challenges:

   - How do we re-design the supply chain network? Do we create micro-fulfillment centers like some big companies with the wherewithal to do it or partner with e-tailers and use their fulfillment centers to manage inventory?
   - An organization's presence in multiple channels would mean continuous cannibalization of demand, creating an unwanted disruption of sizing demand by channel. Since the backward supply chains are integrated differently for different channels, this has a cascading impact on the supply chain and its partners.
   - Data management is a critical challenge, given that most CPG companies today are challenged by a fat long tail of products. Ensuring consistency in product launches, pricing and promotions across channels requires an elevated level of data quality. However, monolithic applications dominate in large organizations even today and makes data management clumsy and unwieldy.

While the availability of new technologies and tools has democratized the DTC strategy, some of the cardinal principles of the supply chain still hold good. These primarily revolve around people and processes. Perfecting a DTC business model in a cost-optimal and profitable manner requires partnerships with vendors with an end-to-end view of the supply chain.

With its drive towards micro-applications on the cloud that can speak to other disparate applications and a nimble open-source architecture, Infosys has brought in a portfolio of services relevant to organizations that are keen to revive their supply chain strategy.

- **Custom demand planning architecture**: Traditional planning applications are limited by using the time series model that heavily relies on historical data. Usually, historical data is a poor representation of demand since it does not have information on lost demand. Moreover, it does not have any correlation analytics around cannibalization within or among different product categories. Further, models rely heavily on smoothing spikes that may be seasonal or repeatable, thereby diluting demand signals. All in all, achieving a 70% forecast accuracy at a national-SKU group-month level is considered the best possible accuracy that can be achieved. Unfortunately, in a highly commoditized and competitive environment where margins are hyper-sensitive, the low bar on forecast accuracy implies money lost for a company.

Infosys has created an architecture on a hyperscaler platform that can ingest a variety of demand signals – syndicated, sentiment, promotion, open-source APIs on weather events as an example, and a host of other indicators provide a much-needed boost to the demand signal. These signals can be optimized and customized for a DTC strategy.
• On-time and in-full model:

While large retailers and e-tailers provide an aggregated and customized view of fulfillment metrics, supply chains will do well in tracking performance metrics such as on-time and in-full. Traditional planning models are deterministic and rely on simple calculations to project inventory deficits or excesses. While the planning models are excellent at sourcing and stocking decisions in the network, they fall short in using data outside of the planning model to make a probabilistic bet on fulfilling demand. Thus, planners spend an inordinate amount of time on managing supply chain requirements. They are often caught up in execution without any exception-based rules that the toolset was initially designed for.

A basic requirement of a self-healing and autonomous supply chain is to continually keep track of how well an organization is doing on the fulfillment front, factoring unstructured information into the data model that otherwise is managed “humanly.” The Infosys ‘On-Time, In-Full’ (OTIF) solution model addresses these grievances and optimizes planner time. In its most evolved form, the solution highlights the “orders at risk,” learns about the interventions made and can make supply chain decisions by itself with predefined thresholds.

Organizations embark on unique business models such as DTC to stay relevant. They must shift from traditional planning models and embrace the unique competitive advantages that these custom applications can provide.
About the Author

Srinivas K  
Senior Principal, Infosys Consulting  

Srini has over 21 years of experience leading transformation programs for CPG, Manufacturing and AFS customers. His key areas of expertise include supply chain strategy and processes and SAP Supply Chain product(s). He has led several successful client engagements including landed cost optimization for a leading food CPG; implementation of Order Promising module of SAP for a leading consumer products company; implementation of SAP-based collaboration product for a leading confectionary to name a few.