Food Supply Chain

The Indian retail industry is marked by fierce competition with more and more players entering the retail space as a result of an exponential growth in the less-penetrated organized sector. Also, the low entry and exit barriers characterizing the industry make it lucrative for a multitude of players to enter with massive investment. This influx of players is, in turn, leading to less differentiation among products, thus shifting from a product differentiated industry to a price differentiated market, i.e. how effectively a player can retail a certain product at the cheapest possible cost. The need to reduce cost and to leverage logistical expertise in order to gain a sustainable competitive advantage is pressurizing players across markets to reinvestigate the value chain.

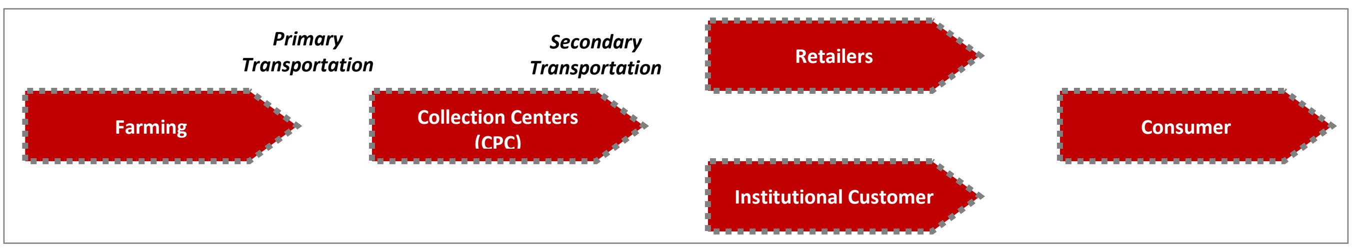
The retail supply chain is composed of multiple interlocked supply chains for various categories and formats. This complexity is further heightened by the large number of SKUs involved, multiple sales and storage locations, demand sensitivities and unpredictability with a variety of formats handling many categories. The most complex of these is the food supply chain, owing to its structure and the nature of the products involved.

The food supply chain has been historically characterized by middlemen and traders who used to play an important role in the procurement of the produce and selling it to the markets. The agricultural markets are established by the government and are controlled through the State APMC acts. These markets are managed by the market committees constituted by the state governments. No person or agency is allowed to wholesale the product, thus ensuring the monopoly of the government-regulated wholesale market. This has resulted in a closed market system struggling with obsolete technologies, providing no market support to farmers, resulting in unorganized and poor retailing, and fluctuating raw material supply to the processing industry.

To understand the constraints and challenges faced in the food value chain, it is necessary to look at the supply chain of some of the key categories of the food market, viz. Fresh Produce, Staples, Dairy and Fast Moving Consumer Goods/ Consumer Packaged Goods (FMCG/CPG).

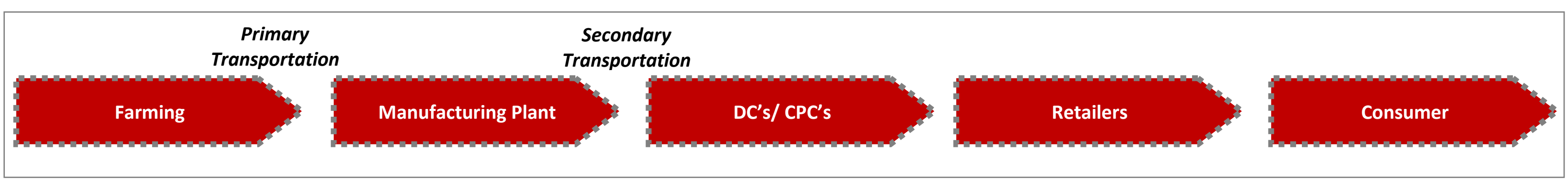
Fresh Produce

Commodities can be procured at collection centers (CPCs) for local produce or at mandis (Wholesale Markets) through traders or agents especially for the commodities like exotic fruits or imported veggies that need to be procured from distant locations. The products are then supplied either directly to institutional customers buying in bulk or to retailers who sell to the end-consumer. The key constraints in this category are the simultaneous requirement of large number of transport during the night hours from CPCs to retail stores (as the orders are placed only after the day's retail operations) and the manpower requirement at the time of loading and deploying the products. The perishable nature of the products and fragmented cold chain supply also adds to the difficulties.



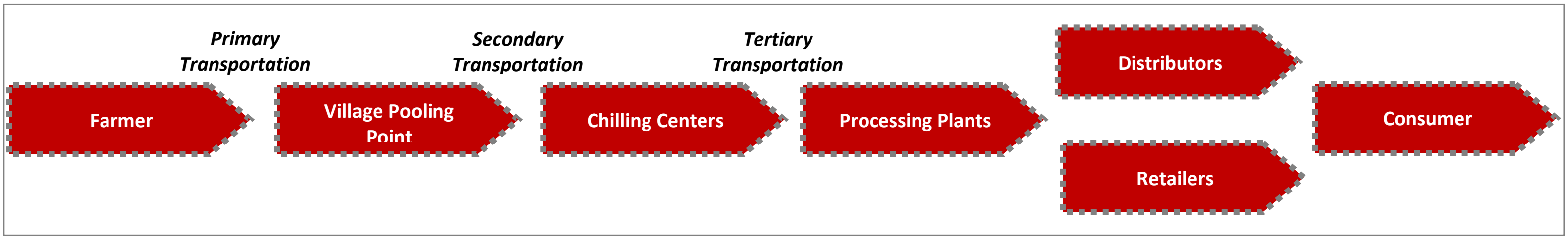
Staples

Staples constitute commodities like rice, pulses, sugar, etc. that are packaged and sold to the consumer via retailers in the form of both branded and unbranded products. Large volumes are involved in transportation; these necessitate automation and technological intervention that is currently missing in the industry structure. The Distribution Centers (DCs) are also geographically limited close to the produce and thus face constraints in terms of transportation requirement, manpower handling, and lack of specialized technological involvement accentuated by the lack of cold chain infrastructure.



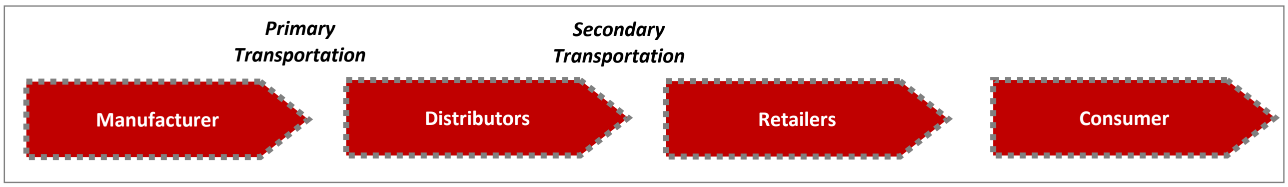
Dairy Products

The supply for the dairy products is the most unique among the food product industry. The low volumes of milk required to be collected at the village level leads to an underutilization of the vehicle capacity. This is unavoidable due to the perishable nature of milk (a maximum of 4 hours can elapse in transportation to the chilling centers) and poor public infrastructure. The chilling centers then transport the milk to the processing plants, from where it passes to distributors or retailers depending upon the packaging of the product.



FMCG/ CPG

In this category, since the vendors are large and have their own distribution system, they directly supply to retailers. Sometimes, retailers also pick products from the factory's gate at a negotiated price, thus minimizing intermediaries and reducing the cost, resulting in higher profits. The major issues faced in this category are dependence on labor (involved in packing & parceling, etc.), the number of SKUs and brands involved, large inventory due to orders being limited to large quantities.



The food supply chain is yet to evolve, although a speedy transformation has been witnessed across product categories. This is the outcome of the increasing share of organized retail sales (likely to be further fuelled by liberalization of FDI in retail), concentration of food processing sector, modernization of the wholesale segment with evolution of logistics firms, increase in number of cold chains and development of integrated players (wholesaler plus cold chain) leading to shorter supply chains by reducing intermediaries and, finally, the private sector's investment in the market reducing the government's role to a very small percentage. Apart from the structural changes, there are other drivers of growth that are capable of transforming food chain market dynamics. First, the impact of greater policy reforms, which include the advent of a uniform taxation system across the nation, establishment of logistics parks and development of infrastructural support in terms of public facilities and cold chains. Second, the development of IT and automation industry and supply chain specific solutions will help the automation of the value chain at different levels.

Although a "quiet revolution" is being witnessed in the food sector constraints still exist which are adversely affecting this transformation. Two of these constraints that have a great impact on the evolution are the translation of policies and political decisions of the Indian government into actionable plans (e.g., the availability of infrastructure connecting the deepest rural areas with urban India and distribution of products and services in such areas is still only on paper) and the various policy constraints limiting the direct procurement of commodities by retailers, manufacturers and wholesalers from farmers and the existence of the intermediaries and monopoly of the government.

Policy reforms by the government and investment from the private sector will decide the level of integration and evolution of food supply chain in the future.

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